

Glencoe Mathematics

Mastering the TAKS

(Texas Assessment of
Knowledge and Skills)

Grade 6

Diagnose Prescribe Practice Benchmark



Glencoe

New York, New York Columbus, Ohio Chicago, Illinois Peoria, Illinois Woodland Hills, California

Test-Taking Tips

- Go to bed early the night before the test. You will think more clearly after a good night's rest.
- Read each problem carefully, and think about ways to solve the problem before you try to answer the question.
- Relax. Most people get nervous when taking a test. It's natural. Just do your best.
- Answer questions that you are sure about first. If you do not know the answer to a question, skip it and go back to that question later.
- Think positively. Some problems may seem hard to you, but you may be able to figure out what to do if you read each question carefully.
- If no figure is provided, draw one. If one is furnished, mark it in any way that will help you solve the problem.
- When you have finished each problem, reread it to make sure that your answer is reasonable.
- Become familiar with a variety of formulas and when they should be used.
- Make sure that the number of the question on the answer sheet matches the number of the question on which you are working in your test booklet.



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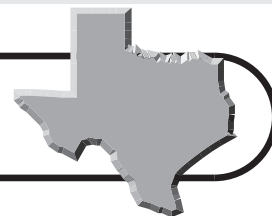
Mastering the TAKS: Diagnose–Prescribe–Practice–Benchmark, Grade 6

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Road Map to TAKS Success

An Annotated Table of Contents



Checkpoint Ahead

Steps to Success

Page(s)



1 Diagnose Your Needs

Learn what mathematics skills are assessed on the TAKS.

Texas Essential Knowledge and Skills (TEKS),
Grade 6 Mathematicsvi–ix

Take the Diagnostic Test to find out which mathematics skills you have mastered.

Diagnostic Test.....1–9

Record your mastered skills.

Student Recording Chart.....v

If you made a perfect score on your Diagnostic Test, proceed to Step 3 on the next page.

Reteaching

Mastery



2 Prescribe Ways to Improve Your Skills

Use the information from your Student Recording Sheet to determine which Practice by Objective pages you need to complete to improve your mathematics skills.

Numbers, Operations, and Quantitative Reasoning.....10–17

Patterns, Relationships, and Algebraic Thinking18–23

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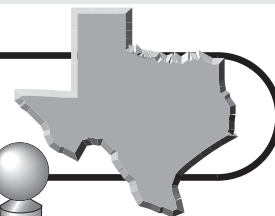
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Underlying Processes and Mathematical Tools43–49

continued on the next page

Road Map to TAKS Success

An Annotated Table of Contents



Practice

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Page(s)

3

Practice Your Test Skills

Take the Practice Test to determine how you have improved your mathematics skills.

Practice Test50–57

Approximately 10 weeks before your test date, begin the Countdown to TAKS. This contains problems that are similar to those found on the TAKS.

Countdown to TAKS58–82

Work on the problems for each day unless your teacher instructs you to do otherwise. Each question tells which objective is being assessed.

4

Benchmark Your Progress

Monitor your progress as the year progresses by taking the Benchmark Tests. You can record your progress with each test.

Mastery of Objectives Chartx

Each Benchmark Test assesses the same concepts but is taken at a different time during the school year. Your test scores should improve with each test taken.

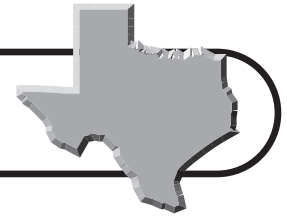
Benchmark Test 1 (take in late October)83–92

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Welcome to
Success!

Student Recording Chart



Directions Mark an × next to each question from the Diagnostic Test that you answered *incorrectly*. If there is an × marked for an Objective, write **Yes** in the **Need Practice?** box. Then complete the practice pages for that Objective.

Objective 1	6.1(A)	6.1(C)	6.1(D)	6.1(E)
Test Questions	10 □	32 □	12 □	19 □
Need Practice?				
Practice Pages	10	12	12	13

Objective 1	6.2(A)	6.2(C)	6.2(D)
Test Questions	38 □	23 □ 27 □	18 □ 31 □
Need Practice?			
Practice Pages	13, 14	16	17

Objective 2	6.3(A)	6.3(B)	6.3(C)	6.4(A)	6.4(B)	6.5(A)
Test Questions	3 □ 26 □	1 □ 42 □	9 □	41 □	2 □	13 □
Need Practice?						
Practice Pages	18	19	20	21	22	23

Objective 3	6.6(A)	6.6(B)	6.6(C)	6.7(A)
Test Questions	44 □	4 □ 8 □	15 □ 40 □	20 □ 24 □
Need Practice?				
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Objective 4	6.8(A)	6.8(B)	6.8(C)	6.8(D)
Test Questions	5 □ 46 □	15 □	32 □	6 □ 20 □
Need Practice?				
Practice Pages	29	30	31	32

Objective 5	6.9(A)	6.9(B)	6.10(A)	6.10(B)	6.10(C)	6.10(D)
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Objective 6	6.11(A)	6.11(B)	6.11(C)	6.12(A)	6.13(A)	6.13(B)
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Need Practice?						
Practice Pages	43	44	45	46–48	48, 49	49

Texas Assessment of Knowledge and Skills, Grade 6

TAKS Objectives and TEKS Student Expectations	
OBJECTIVE 1: NUMBERS, OPERATIONS, AND QUANTITATIVE REASONING	
The student will demonstrate an understanding of numbers, operations, and quantitative reasoning.	
(6.1)	<p>The student represents and uses rational numbers in a variety of equivalent forms. The student is expected to</p> <ul style="list-style-type: none"> (A) compare and order non-negative rational numbers; (B) generate equivalent forms of rational numbers, including whole numbers, fractions, and decimals; (C) use integers to represent real-life situations; (D) write prime factorizations using exponents; and (E) identify factors and multiples, including common factors and common multiples.
(6.2)	<p>The student adds, subtracts, multiplies, and divides to solve problems and justify solutions. The student is expected to</p> <ul style="list-style-type: none"> (A) model addition and subtraction situations involving fractions with [objects,] pictures, words, and numbers; (B) use addition and subtraction to solve problems involving fractions and decimals; (C) use multiplication and division of whole numbers to solve problems, including situations involving equivalent ratios and rates; and (D) estimate and round to approximate reasonable results and to solve problems where exact answers are not required.
OBJECTIVE 2: PATTERNS, RELATIONSHIPS, AND ALGEBRAIC THINKING	
The student will demonstrate an understanding of patterns, relationships, and algebraic reasoning.	
(6.3)	<p>The student solves problems involving proportional relationships. The student is expected to</p> <ul style="list-style-type: none"> (A) use ratios to describe proportional situations; (B) represent ratios and percents with [concrete] models, fractions, and decimals; and (C) use ratios to make predictions in proportional situations.
(6.4)	<p>The student uses letters as variables in mathematical expressions to describe how one quantity changes when a related quantity changes. The student is expected to</p> <ul style="list-style-type: none"> (A) use tables and symbols to represent and describe proportional and other relationships involving conversions, sequences, perimeter, area, etc.; and (B) generate formulas to represent relationships involving perimeter, area, volume of a rectangular prism, etc., from a table of data.
(6.5)	<p>The student uses letters to represent an unknown in an equation. The student is expected to</p> <ul style="list-style-type: none"> (A) formulate an equation from a problem situation.

TAKS Objectives and TEKS Student Expectations

OBJECTIVE 3: GEOMETRY AND SPATIAL REASONING

The student will demonstrate an understanding of geometry and spatial reasoning.

(6.6) The student uses geometric vocabulary to describe angles, polygons, and circles. The student is expected to

- (A) use angle measurements to classify angles as acute, obtuse, or right;
- (B) identify relationships involving angles in triangles and quadrilaterals; and
- (C) describe the relationship between radius, diameter, and circumference of a circle.

(6.7) The student uses coordinate geometry to identify location in two dimensions. The student is expected to

- (A) locate and name points on a coordinate plane using ordered pairs of non-negative rational numbers.

OBJECTIVE 4: MEASUREMENT

The student will demonstrate an understanding of the concepts and uses of measurement.

(6.8) The student solves application problems involving estimation and measurement of length, area, time, temperature, capacity, weight, and angles. The student is expected to

- (A) estimate measurements and evaluate reasonableness of results;
- (B) select and use appropriate units, tools, or formulas to measure and to solve problems involving length (including perimeter and circumference), area, time, temperature, capacity, and weight;
- (C) measure angles; and
- (D) convert measures within the same measurement system (customary and metric) based on relationships between units.

TAKS Objectives and TEKS Student Expectations

OBJECTIVE 5: PROBABILITY AND STATISTICS

The student will demonstrate an understanding of probability and statistics.

(6.9)	The student uses experimental and theoretical probability to make predictions. The student is expected to (A) construct sample spaces using lists, tree diagrams, and combinations; and (B) find the probabilities of a simple event and its complement and describe the relationship between the two.
(6.10)	The student uses statistical representations to analyze data. The student is expected to (A) [draw and] compare different graphical representations of the same data; (B) use median, mode, and range to describe data; (C) sketch circle graphs to display data; and (D) solve problems by collecting, organizing, displaying and interpreting data.

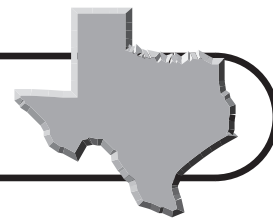
TAKS Objectives and TEKS Student Expectations

OBJECTIVE 6: UNDERLYING PROCESSES AND MATHEMATICAL TOOLS

The student will demonstrate an understanding of the mathematical processes and tools used in problem solving.

(6.11)	<p>The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to</p> <ul style="list-style-type: none"> (A) identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics; (B) use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness; and (C) select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem.
(6.12)	<p>The student communicates about Grade 6 mathematics through informal and mathematical language, representations, and models. The student is expected to</p> <ul style="list-style-type: none"> (A) communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models.
(6.13)	<p>The student uses logical reasoning to make conjectures and verify conclusions. The student is expected to</p> <ul style="list-style-type: none"> (A) make conjectures from patterns or sets of examples and nonexamples; and (B) validate his/her conclusions using mathematical properties and relationships.

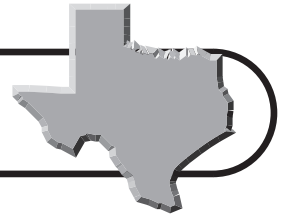
Mastery of Objectives Chart



Directions Mark a ✓ by each question from the Benchmark Test that you answer *correctly*.
The goal is to gain more ✓s with each Benchmark Test you take.

	Test 1	Test 2	Test 3
Objective	Date:	Date:	Date:
Number, Operations, and Quantitative Reasoning	Questions: <input type="checkbox"/> 13 <input type="checkbox"/> 30 <input type="checkbox"/> 14 <input type="checkbox"/> 31 <input type="checkbox"/> 15 <input type="checkbox"/> 32 <input type="checkbox"/> 28 <input type="checkbox"/> 33 <input type="checkbox"/> 29 <input type="checkbox"/> 38	Questions: <input type="checkbox"/> 12 <input type="checkbox"/> 29 <input type="checkbox"/> 13 <input type="checkbox"/> 30 <input type="checkbox"/> 14 <input type="checkbox"/> 31 <input type="checkbox"/> 27 <input type="checkbox"/> 33 <input type="checkbox"/> 28 <input type="checkbox"/> 38	Questions: <input type="checkbox"/> 12 <input type="checkbox"/> 29 <input type="checkbox"/> 13 <input type="checkbox"/> 30 <input type="checkbox"/> 14 <input type="checkbox"/> 31 <input type="checkbox"/> 27 <input type="checkbox"/> 32 <input type="checkbox"/> 28 <input type="checkbox"/> 38
Patterns, Relationships, and Algebraic Thinking	Questions: <input type="checkbox"/> 2 <input type="checkbox"/> 23 <input type="checkbox"/> 3 <input type="checkbox"/> 35 <input type="checkbox"/> 4 <input type="checkbox"/> 40 <input type="checkbox"/> 5 <input type="checkbox"/> 50 <input type="checkbox"/> 6	Questions: <input type="checkbox"/> 2 <input type="checkbox"/> 32 <input type="checkbox"/> 3 <input type="checkbox"/> 35 <input type="checkbox"/> 4 <input type="checkbox"/> 40 <input type="checkbox"/> 5 <input type="checkbox"/> 50 <input type="checkbox"/> 22	Questions: <input type="checkbox"/> 2 <input type="checkbox"/> 32 <input type="checkbox"/> 3 <input type="checkbox"/> 35 <input type="checkbox"/> 4 <input type="checkbox"/> 40 <input type="checkbox"/> 5 <input type="checkbox"/> 50 <input type="checkbox"/> 22
Geometry and Spatial Reasoning	Questions: <input type="checkbox"/> 16 <input type="checkbox"/> 47 <input type="checkbox"/> 17 <input type="checkbox"/> 48 <input type="checkbox"/> 45 <input type="checkbox"/> 49 <input type="checkbox"/> 46	Questions: <input type="checkbox"/> 15 <input type="checkbox"/> 47 <input type="checkbox"/> 16 <input type="checkbox"/> 48 <input type="checkbox"/> 45 <input type="checkbox"/> 49 <input type="checkbox"/> 46	Questions: <input type="checkbox"/> 15 <input type="checkbox"/> 47 <input type="checkbox"/> 16 <input type="checkbox"/> 48 <input type="checkbox"/> 45 <input type="checkbox"/> 49 <input type="checkbox"/> 46
Measurement	Questions: <input type="checkbox"/> 7 <input type="checkbox"/> 20 <input type="checkbox"/> 8 <input type="checkbox"/> 21 <input type="checkbox"/> 10 <input type="checkbox"/> 24 <input type="checkbox"/> 18	Questions: <input type="checkbox"/> 6 <input type="checkbox"/> 19 <input type="checkbox"/> 7 <input type="checkbox"/> 20 <input type="checkbox"/> 8 <input type="checkbox"/> 44 <input type="checkbox"/> 17	Questions: <input type="checkbox"/> 6 <input type="checkbox"/> 19 <input type="checkbox"/> 7 <input type="checkbox"/> 20 <input type="checkbox"/> 9 <input type="checkbox"/> 44 <input type="checkbox"/> 17
Probability and Statistics	Questions: <input type="checkbox"/> 9 <input type="checkbox"/> 36 <input type="checkbox"/> 11 <input type="checkbox"/> 41 <input type="checkbox"/> 24 <input type="checkbox"/> 42 <input type="checkbox"/> 25 <input type="checkbox"/> 43	Questions: <input type="checkbox"/> 9 <input type="checkbox"/> 36 <input type="checkbox"/> 10 <input type="checkbox"/> 41 <input type="checkbox"/> 23 <input type="checkbox"/> 42 <input type="checkbox"/> 24 <input type="checkbox"/> 43	Questions: <input type="checkbox"/> 8 <input type="checkbox"/> 36 <input type="checkbox"/> 10 <input type="checkbox"/> 41 <input type="checkbox"/> 23 <input type="checkbox"/> 42 <input type="checkbox"/> 24 <input type="checkbox"/> 43
Underlying Processes and Mathematical Tools	Questions: <input type="checkbox"/> 1 <input type="checkbox"/> 27 <input type="checkbox"/> 12 <input type="checkbox"/> 34 <input type="checkbox"/> 19 <input type="checkbox"/> 37 <input type="checkbox"/> 22 <input type="checkbox"/> 39 <input type="checkbox"/> 26	Questions: <input type="checkbox"/> 1 <input type="checkbox"/> 26 <input type="checkbox"/> 11 <input type="checkbox"/> 34 <input type="checkbox"/> 18 <input type="checkbox"/> 37 <input type="checkbox"/> 21 <input type="checkbox"/> 39 <input type="checkbox"/> 25	Questions: <input type="checkbox"/> 1 <input type="checkbox"/> 26 <input type="checkbox"/> 11 <input type="checkbox"/> 33 <input type="checkbox"/> 18 <input type="checkbox"/> 37 <input type="checkbox"/> 21 <input type="checkbox"/> 39 <input type="checkbox"/> 25

Mathematics Chart



Perimeter

rectangle $P = 2\ell + 2w$ or
 $P = 2(\ell + w)$

Circumference

circle $C = 2\pi r$ or $C = \pi d$

Area

rectangle $A = \ell w$ or $A = bh$

triangle $A = \frac{1}{2}bh$ or $A = \frac{bh}{2}$

trapezoid $A = \frac{1}{2}(b_1 + b_2)h$ or
 $A = \frac{(b_1 + b_2)h}{2}$

circle $A = \pi r^2$

Volume

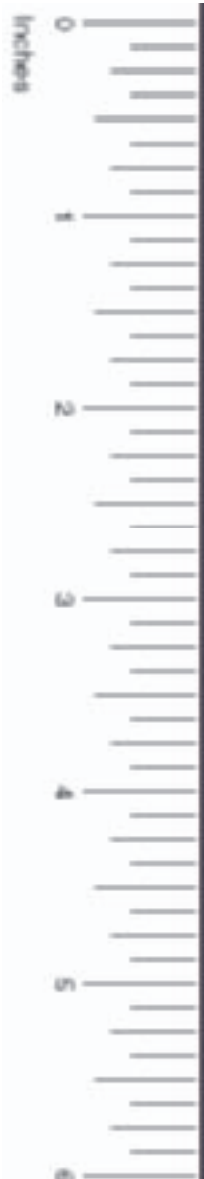
prism or cylinder $V = Bh^*$

pyramid or cone $V = Bh^*$

sphere $V = \frac{4}{3}\pi r^3$

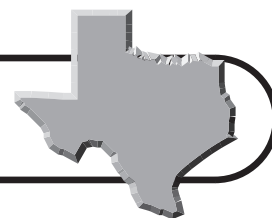
Pi

$\pi \approx 3.14$ or $\pi \approx \frac{22}{7}$



**B represents the area of the base of a solid figure.*

Mathematics Chart



LENGTH

Metric

1 kilometer = 1000 meters

1 meter = 100 centimeters

1 centimeter = 10 millimeters

Customary

1 mile = 1760 yards

1 mile = 5280 feet

1 yard = 3 feet

1 foot = 12 inches

MASS AND WEIGHT

Metric

1 kilogram = 1000 grams

1 gram = 1000 milligrams

Customary

1 ton = 2000 pounds

1 pound = 16 ounces

CAPACITY AND VOLUME

Metric

1 liter = 1000 milliliters

Customary

1 gallon = 4 quarts

1 gallon = 128 ounces

1 quart = 2 pints

1 pint = 2 cups

1 cup = 8 ounces

TIME

1 year = 365 days

1 year = 12 months

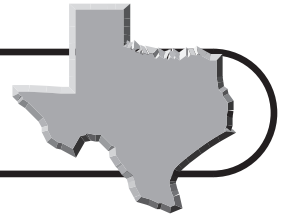
1 year = 52 weeks

1 week = 7 days

1 day = 24 hours

1 hour = 60 minutes

1 minute = 60 seconds



Diagnostic Test

Read each question and choose the correct answer for each question.

- 1** Eric took a math test. He answered 94% of the questions correctly. Which fraction is equivalent to 94%? **(6.3)(B)**

A $\frac{1}{94}$
B $\frac{9}{10}$
C $\frac{100}{94}$
D $\frac{47}{50}$

- 2** The diameter of the pitcher's mound on a baseball field is 18 feet. Which formula could be used to find A , the area of the pitcher's mound? **(6.4)(B)**

F $A = 18^3$
G $A = 18^2$
H $A = \pi \times 18$
J $A = \pi \times 9^2$

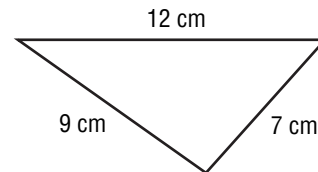
- 3** In the 2006 Rose Bowl, the University of Texas Longhorns football team scored 41 points. The University of Southern California Trojans football team scored 38 points. Which ratio shows the number of points scored by the Longhorns to the total number of points scored by both teams together? **(6.3)(A)**

A 41 to 79
B 38 to 79
C 79 to 41
D 41 to 38

- 4** Which of the following could be the angle measures of a triangle? **(6.6)(B)**

F $140^\circ, 30^\circ, 20^\circ$
G $120^\circ, 20^\circ, 10^\circ$
H $90^\circ, 60^\circ, 30^\circ$
J $70^\circ, 40^\circ, 20^\circ$

- 5** Which is the best estimate of the perimeter of the triangle? **(6.8)(A)**



A 16 cm
B 18 cm
C 21 cm
D 28 cm

- 6** Jamal ran 2 miles around the track. How many yards did he run? **(6.8)(D)**

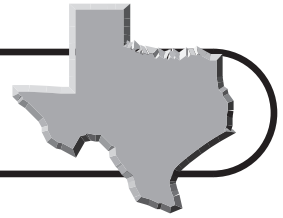
F 3,250 yd
G 3,520 yd
H 3,550 yd
J 3,575 yd

- 7** What is the mode of the numbers listed below? **(6.10)(B)**

4, 9, 7, 21, 8, 9, 12, 6, 9, 22

A 21
B 19
C 13
D 9





Diagnostic Test (continued)

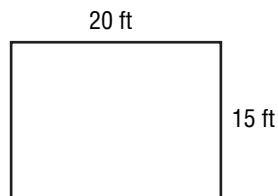
- 14** Kathleen drove her car from Austin to San Antonio. She used 4.5 gallons of gas on the trip. When she left Austin, her odometer read 6,250 miles. When she arrived in San Antonio 1 hour and 30 minutes later, her odometer read 6,328 miles. Which of the following cannot be determined from the information given? **(6.11)(B)**

F The time Kathleen left Austin
G The number of miles Kathleen drove
H The number of miles per gallon Kathleen's car got on the trip
J Kathleen's average speed during her trip

- 15** Which expression can be used to find the diameter of a circle with an approximate circumference of 38 inches? **(6.6)(C)**

A 38×3.14
B $38 \div 3.14$
C $38 \div 4$
D $38 \div 4 + 3.14$

- 16** Mr. Grant is going to buy carpet to cover his basement floor using the measurements shown below. How many square feet of carpet will he need to cover the entire floor of the basement? **(6.8)(B)**



F 120 sq ft
G 150 sq ft
H 300 sq ft
J 400 sq ft

- 17** Brandon and his two brothers went to a concert. They bought 3 concert tickets for \$27.50 each, 1 CD for \$15.00, and 3 drinks for \$2.00 each. If the total amount of money spent was split evenly among all three brothers, which equation could be used to find c , the amount of money each brother paid? **(6.11)(A)**

A $c = 27.50 + 15.00 + 2.00$
B $c = (3 \times 27.50 + 15.00 + 3 \times 2.00) \div 3$
C $c = (3 \times 27.50) \div 3 + 15.00 + 2.00$
D $c = (3 \times 27.50 + 2.00 + 15.00) \div 3$

- 18** Tyler is setting up chairs in the cafeteria for a science club meeting. He arranged 15 rows of chairs with 32 chairs in each row. What is a reasonable estimate of the number of chairs Tyler set up in the cafeteria? **(6.2)(D)**

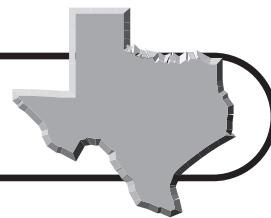
F 100
G 300
H 500
J 800

- 19** What is the greatest common factor of 24 and 32? **(6.1)(E)**

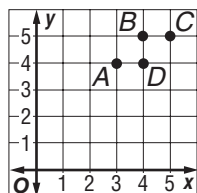
A 2
B 3
C 8
D 9



Diagnostic Test (continued)



- 20** Which point represents the location of the ordered pair $(4, 5)$? **(6.7)(A)**



- F** Point *A*
G Point *B*
H Point *C*
J Point *D*

- 21** Allie needs 2 feet of cord for each beaded necklace that she is making. The table below shows the number of yards of cord Allie bought from four different stores.

Allie's Cord Purchases

Store	Number of Yards
Hobby Heaven	3 yards
Bob's Beads	12 yards
Kraftland	20 yards
K.C.'s	10 yards

How many necklaces can Allie make?
(6.8)(D)

Record your answer and fill in the bubbles on the grid below. Be sure to use the correct place value.

				.		
0	0	0	0		0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9

- 22** Look at the group of number pairs below. **(6.13)(A)**

$(2, 4), (3, 9), (8, 64), (10, 100)$

Which of the following number pairs belong to this group?

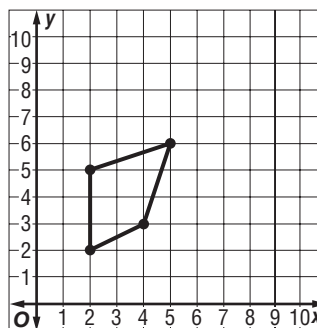
- F** $(4, 12)$
G $(5, 30)$
H $(6, 36)$
J $(7, 48)$

- 23** Ashley bought 2 pairs of jeans that cost the same amount. If she spent a total of \$54, how much did each pair of jeans cost? **(6.2)(C)**

- A** \$68
B \$47
C \$29
D \$27

- 24** Conner listed the coordinates of 3 of the vertices of the quadrilateral below.

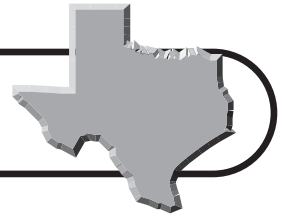
$(2, 2), (4, 3), (5, 6)$



Which of the following shows the coordinates of the fourth vertex?

- (6.7)(A)**
F $(5, 3)$
G $(2, 5)$
H $(3, 5)$
J $(1, 1)$





Diagnostic Test (continued)

- 25** Ms. Schreck's car gets an average of 30 miles per gallon. The gas tank holds 15 gallons of gas. How can Ms. Schreck find the number of miles her car can travel on one full tank of gas? **(6.11)(C)**

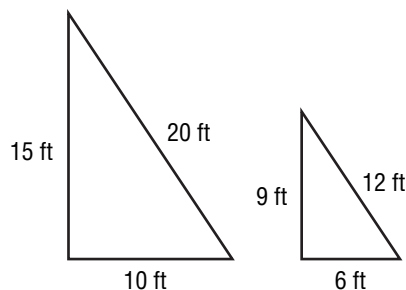
A Divide the car's average miles per gallon by the number of gallons the tank can hold.

B Multiply the car's average miles per gallon by the number of gallons the tank can hold.

C Add the car's average miles per gallon to the number of gallons the tank can hold.

D Subtract the number of gallons the tank can hold from the car's average miles per gallon.

- 26** The triangles shown below are similar.



What is the ratio of a side length of the smaller triangle to the corresponding side length of the larger triangle? **(6.3)(A)**

F 3 to 4

G 5 to 3

H 4 to 5

J 3 to 5

- 27** Aiko has a piece of material that is 9 feet in length. She cuts off two pieces so that her two friends can help her make costumes. One friend has a piece $2\frac{3}{4}$ feet long, and her other friend's piece is $3\frac{1}{2}$ feet long. What mixed number shows the length of material Aiko has left? **(6.2)(C)**

A $2\frac{1}{4}$ ft

B $2\frac{3}{4}$ ft

C $3\frac{3}{4}$ ft

D $6\frac{1}{4}$ ft

- 28** Each number in the sequence below has the same relationship to the number immediately before it.

114, 102, 90, 78, 66

How can the next number in the sequence be found? **(6.11)(C)**

F Divide the previous number by 12.

G Multiply the previous number by 12.

H Add 9 to the previous number.

J Subtract 12 from the previous number.

- 29** Find the prime factorization of 60. **(6.1)(D)**

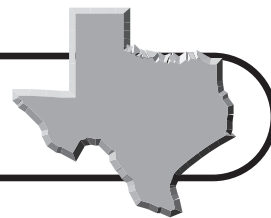
A $3 \times 4 \times 5$

B $2^2 \times 3 \times 5$

C $2 \times 3^2 \times 5$

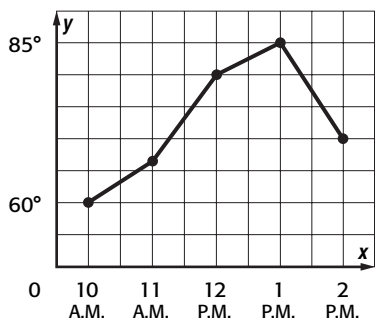
D Not here





Diagnostic Test (continued)

- 30** The line graph below shows the change in temperature from 10 A.M. to 2 P.M.



Between which two hours did the temperature increase by the greatest amount? **(6.10)(D)**

- F** Between 10 A.M. and 11 A.M.
- G** Between 11 A.M. and 12 P.M.
- H** Between 12 P.M. and 1 P.M.
- J** Between 1 P.M. and 2 P.M.

- 31** Dillon and his father went fishing in Lake Travis. They caught 13 fish that weighed an average of 1.5 pounds each. About how much did the fish weigh all together? **(6.2)(D)**

- A** 8.6 lb
- B** 13 lb
- C** 15 lb
- D** 20 lb

- 32** The thermometer outside Cody's house showed a temperature of 31°F at 7 A.M. At 4 P.M., the thermometer showed a temperature of 62°F . Which best describes the change in temperature from 7 A.M. to 4 P.M.? **(6.1)(C)**

- F** The temperature decreased by 31° .
- G** The temperature increased by 31° .
- H** The temperature increased by 62° .
- J** The temperature decreased by 41° .

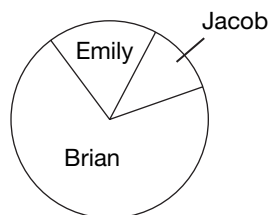
- 33** Three of Nickie's friends had a car wash to raise money for a class trip.

Car Wash Percentage

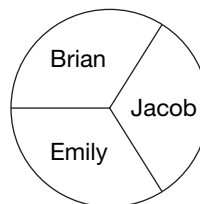
Name	Percent of Money Raised
Jacob	10%
Emily	30%
Brian	60%

Which circle graph best displays the information in the table about the percentage of money Nickie's friends raised? **(6.10)(C)**

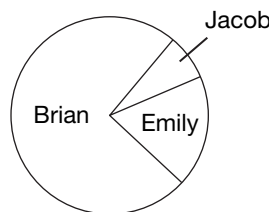
A



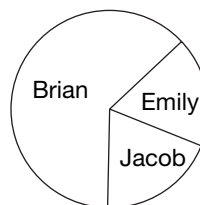
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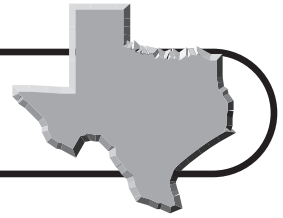


C



D



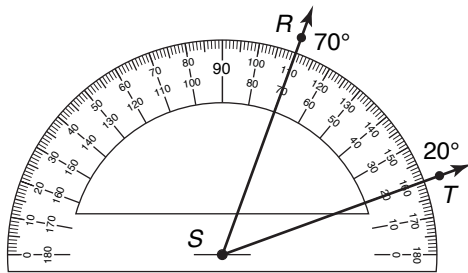


Diagnostic Test (continued)

- 34** Mr. Ruiz is measuring the lengths of four pieces of lumber. Which list shows the lengths in order from shortest to longest? **(6.1)(A)**

F 3.5 ft, 3.75 ft, 3.3 ft, 3.25 ft
G 3.5 ft, 3.25 ft, 3.3 ft, 3.75 ft
H 3.25 ft, 3.3 ft, 3.5 ft, 3.75 ft
J 3.75 ft, 3.25 ft, 3.3 ft, 3.5 ft

- 35** Find the measure of $\angle S$ to the nearest degree. **(6.8)(C)**



A 20°
B 30°
C 45°
D 50°

- 36** Every year in Austin, bats return to live under the Congress Bridge. Each bat flies out at night to eat insects. If one bat eats about 500 insects in one hour and another bat eats about 700 insects in one hour, what is the average number of insects both bats can eat in three hours? **(6.10)(A)**

F 1,200
G 1,800
H 2,400
J 3,600

- 37** Mika wants to arrange a yellow flower, a red flower, and a white flower in a vase. Which table shows all of the possible ways of arranging the three flowers in the vase? **(6.9)(A)**

A

yellow	_____	red	_____	white
red	_____	white	_____	yellow
white	_____	yellow	_____	red

B

yellow	_____	red	_____	white
red	_____	white	_____	red
red	_____	yellow	_____	white
white	_____	red	_____	yellow

C

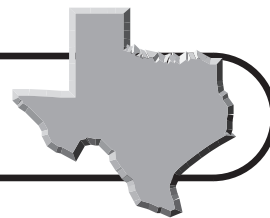
yellow	_____	red	_____	white
red	_____	white	_____	red
red	_____	yellow	_____	white
white	_____	white	_____	yellow
white	_____	red	_____	yellow
	_____	yellow	_____	red

D

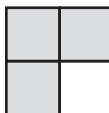
yellow	_____	red	_____	white
red	_____	white	_____	red
red	_____	yellow	_____	white
white	_____	white	_____	yellow
white	_____	red	_____	yellow
	_____	yellow	_____	red
red	_____	yellow	_____	white



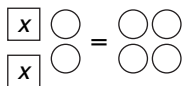
Diagnostic Test (continued)



- 38** Jorge is painting his bedroom. He painted $\frac{1}{2}$ of the bedroom walls on Saturday and $\frac{1}{4}$ of the remaining walls on Sunday. Which model shows how much painting Jorge completed on Saturday and Sunday together? **(6.2)(A)**

F**G****H****J**

- 39** Which equation does the drawing below represent? **(6.12)(A)**



- A** $4x = 4$
B $2x + 2 = 2$
C $2x + 4 = 2x$
D $2x + 2 = 4$

- 40** An advertising company wants to paint a picture of a pizza on a billboard. The pizza will have a radius of 4 feet. Which expression can be used to find the circumference of the circular-painted pizza? **(6.6)(C)**

F 3π **G** 4π **H** 6π **J** 8π

- 41** Look at the number pattern.

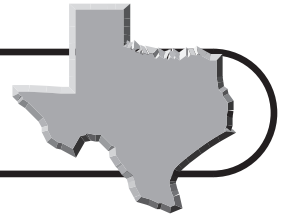
9, 18, 27, 36. . .

Which number sentence can be used to find n , the fifth number in the pattern? **(6.4)(A)**

A $n = 36 + 9$ **B** $n = 36 \times 9$ **C** $n = 9 \times 9$ **D** $n = 9 + 9$

- 42** On Friday, 93% of Mrs. Wiseman's sixth grade class went to the Bob Bullock Texas State History Museum. What decimal represents 93%? **(6.3)(B)**

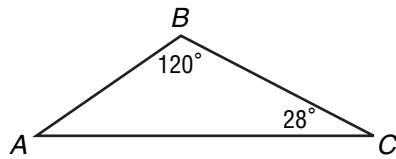
F 93.0**G** 0.93**H** 0.39**J** 0.093



Diagnostic Test (continued)

- 43** Lucia left her house to go on a trip to Dallas at 9:15 A.M. She arrived in Dallas at 1:45 P.M. How long did the trip take Lucia? **(6.11)(A)**
- A** 2 hours 20 minutes
 - B** 3 hours 30 minutes
 - C** 4 hours 15 minutes
 - D** 4 hours 30 minutes

- 44** In the figure below, what type of angle is $\angle B$? **(6.6)(A)**

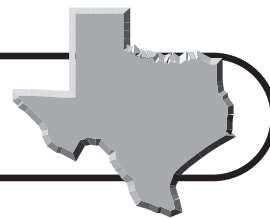


- F** acute
- G** obtuse
- H** right
- J** straight

- 45** Sandy puts 1 blue chip, 1 green chip, 2 red chips, and 1 white chip into a bag. If Sandy draws one chip out of the bag without looking, what is the probability that the chip selected will be a red chip? **(6.9)(B)**
- A** 0.20
 - B** 0.30
 - C** 0.40
 - D** 0.50

- 46** Darden mailed one package to each of his 8 friends. The lightest package weighed 1.25 pounds, and the heaviest package weighed 4.5 pounds. Which is an estimated total weight of the packages sent? **(6.8)(A)**
- F** 10 lb
 - G** 15 lb
 - H** 25 lb
 - J** 35 lb





TAKS Practice

OBJECTIVE 1

Read each question and choose the correct answer for each question.

(6.1)(A) Number, operation, and quantitative reasoning The student represents and uses rational numbers in a variety of equivalent forms. The student is expected to compare and order non-negative rational numbers.

- 1** Derek and three friends were practicing jumps on their skateboards. Derek jumped 7.5 feet, Chris jumped 7.25 feet, Alex jumped 7.75 feet, and Darryl jumped 7.3 feet. Which list shows the lengths they jumped in order from least to greatest?

A 7.25 ft, 7.3 ft, 7.5 ft, 7.75 ft
B 7.5 ft, 7.75 ft, 7.25 ft, 7.2 ft
C 7.75 ft, 7.25 ft, 7.5 ft, 7.3 ft
D 7.25 ft, 7.3 ft, 7.75 ft, 7.2 ft

- 2** Antonio placed 0.345 , $\frac{2}{3}$, $1\frac{1}{4}$, and 0.81 on a number line. Which of these numbers is closest to zero?

F 0.345
G $\frac{2}{3}$
H $1\frac{1}{4}$
J 0.81

- 3** Which of these statements is true?

A $1\frac{1}{4} > 1\frac{1}{8}$
B $\frac{3}{4} > 1\frac{1}{4}$
C $2 < 1\frac{1}{4}$
D $1\frac{1}{4} > 1.4$

- 4** Mrs. Soliz is measuring the lengths of 4 pieces of fabric. Which list shows the lengths in order from greatest to least?

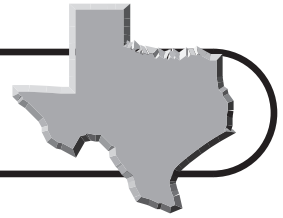
F 4.5 m, 4.75 m, 4.3 m, 4.25 m
G 4.5 m, 4.25 m, 4.3 m, 4.75 m
H 4.75 m, 4.5 m, 4.3 m, 4.25 m
J 4.75 m, 4.25 m, 4.3 m, 4.5 m

- 5** Megan measured the lengths of 4 pieces of yarn for a craft she was making. Which list shows the lengths of yarn in order from greatest to least?

A 3.68 in., 0.22 in., 2.75 in., 1.81 in.
B 3.68 in., 2.75 in., 1.81 in., 0.22 in.
C 0.22 in., 1.81 in., 2.75 in., 3.68 in.
D 2.75 in., 1.81 in., 0.22 in., 3.68 in.

- 6** Mr. Mosley is stacking pieces of wood that he cut. Which list shows the weight, in pounds, of the pieces from least to greatest?

F $\frac{1}{2}$, $\frac{5}{8}$, $\frac{2}{3}$, $\frac{1}{3}$
G $\frac{1}{2}$, $\frac{1}{3}$, $\frac{5}{8}$, $\frac{2}{3}$
H $\frac{2}{3}$, $\frac{5}{8}$, $\frac{1}{2}$, $\frac{1}{3}$
J $\frac{1}{3}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{2}{3}$



TAKS Practice (continued)

(6.1)(B) Number, operation, and quantitative reasoning The student represents and uses rational numbers in a variety of equivalent forms. The student is expected to generate equivalent forms of rational numbers including whole numbers, fractions, and decimals.

- 1** In Irving, it rained 8 out of 25 days. Which of the following best represents $\frac{8}{25}$?

A 0.032
B 3.20
C 0.32
D 32.0

- 2** Tanisha bought a sweater on sale for $\frac{1}{4}$ off the original price. What decimal represents the discount she received on the sweater?

F 0.50
G 0.41
H 0.25
J 0.14

- 3** Ms. Jackson wrote the number $\frac{11}{4}$ on the board. Which of the following best represents $\frac{11}{4}$?

A $0.3\overline{636}$
B 0.411
C 1.14
D 2.75

- 4** Renee is walking home from school. She lives 1.6 miles from school. Which of the following best represents 1.6?

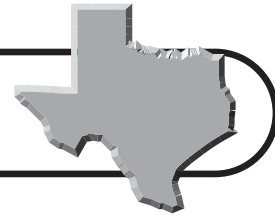
F $\frac{5}{8}$
G $\frac{8}{5}$
H $\frac{16}{6}$
J $\frac{6}{1}$

- 5** On Wednesday, 34% of Mrs. Lindsay's class had the flu. What decimal represents 34%?

A 34.0
B 3.4
C 0.34
D 0.034

- 6** Amara ran 12.8 miles in a road race. Which of the following best represents this distance?

F $12\frac{4}{5}$
G $12\frac{8}{5}$
H $1\frac{28}{5}$
J $\frac{1280}{10}$



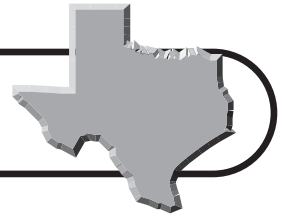
TAKS Practice (continued)

(6.1)(C) Number, operation, and quantitative reasoning The student represents and uses rational numbers in a variety of equivalent forms. The student is expected to use integers to represent real-life situations.

- 1 Martin has read 72 pages of his 243-page book. Which integer represents the change in the number of pages that Martin has left to read?
A 243 **C** -72
B 72 **D** -243
- 2 The odometer of Mr. Burdett's truck read 56,234 miles before his trip and 56,619 miles after his trip. Which integer represents the change in the odometer reading on Mr. Burdett's truck?
F -835 **H** +385
G -234 **J** +635
- 3 The thermometer outside Ellie's house read 78°F at 7 A.M. At 3 P.M., it read 101°F. Which best describes the change in temperature from 7 A.M. to 3 P.M.?
A 78°F **C** 23°F
B 32°F **D** -23°F
- 4 The Jaguars football team was on the 35-yard line. On their next play, they were brought down on the 22-yard line. Which describes the change in field location?
F -13 **H** +7
G -7 **J** +13

(6.1)(D) Number, operation, and quantitative reasoning The student represents and uses rational numbers in a variety of equivalent forms. The student is expected to write prime factorizations using exponents.

- 1 What is the prime factorization of 24?
A $2^3 \times 3$
B $2 \times 2 \times 3$
C $2 \times 3 \times 3$
D $2 \times 3 \times 5$
- 2 Which expression shows the prime factorization of 1,050?
F $2 \times 3 \times 5 \times 7$
G $3 \times 5 \times 7$
H $2 \times 3^3 \times 7$
J $2 \times 3 \times 5^2 \times 7$
- 3 What is the prime factorization of 1,092?
A $2^2 \times 3 \times 7 \times 13$
B $2 \times 3 \times 7 \times 13$
C $2 \times 7 \times 13$
D $2^3 \times 3 \times 7 \times 13$
- 4 What is the prime factorization of 180?
F $2^2 \times 3^2 \times 3$
G $2 \times 3 \times 5$
H $2^2 \times 3^2 \times 5$
J $2^2 \times 3^2 \times 7$
- 5 What is the prime factorization of 77?
A $7 \times 7 \times 11$
B $7^2 \times 11$
C 7×11^2
D 7×11



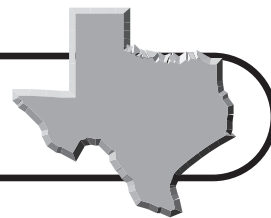
TAKS Practice (continued)

(6.1)(E) Number, operation, and quantitative reasoning The student represents and uses rational numbers in a variety of equivalent forms. The student is expected to identify factors of a positive integer, common factors, and the greatest common factor of a set of positive integers.

- 1 Which of these numbers is a common multiple of 12 and 15?
A 24 **C** 60
B 30 **D** 72
- 2 Which of these numbers is not a common multiple of 3 and 9?
F 18 **H** 36
G 27 **J** 39
- 3 Which of these numbers is a common multiple of 18 and 24?
A 72 **C** 48
B 52 **D** 36
- 4 Which list represents the common factors of 10 and 30?
F 1, 2, 5, 10
G 1, 2, 3, 10
H 1, 3, 5, 10
D 2, 3, 5, 30
- 5 Which number represents a common factor of 48 and 64?
A 12
B 16
C 18
D Not here

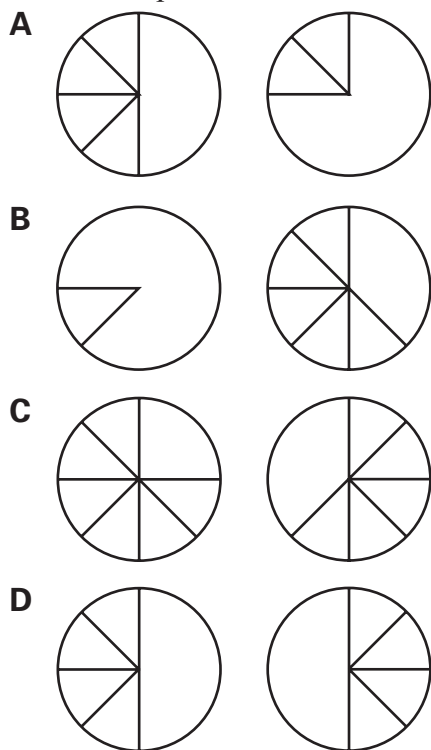
(6.2)(A) Number, operation, and quantitative reasoning The student adds, subtracts, multiplies, and divides to solve problems and justify solutions. The student is expected to model addition and subtraction situations involving fractions with objects, pictures, words, and numbers.

- 1 The students at an Austin junior high school took up a collection for the victims of a hurricane. Of the total amount collected, Reuben collected $\frac{3}{20}$ and Christina collected $\frac{1}{5}$. Which expression represents the fraction of money that was collected by the other students?
A $1 - \frac{3}{20} + \frac{1}{5}$
B $1 + \frac{3}{20} + \frac{1}{5}$
C $1 - \frac{1}{5} + \frac{3}{20}$
D $1 - \frac{3}{20} - \frac{1}{5}$
- 2 Claire ate $\frac{5}{8}$ of an apple and Brooke ate $\frac{2}{3}$ of hers. Which expression can be used to find the part of the apples they ate?
F $2 - \frac{2}{3}$
G $\frac{5}{8} - \frac{2}{3}$
H $\frac{5}{8} + \frac{2}{3}$
J $\frac{5}{8} - 2 + \frac{2}{3}$



TAKS Practice (continued)

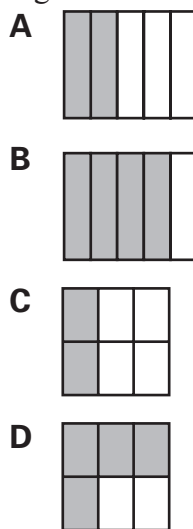
- 3** On Friday night, the Taylor family ordered pizza. They ate $\frac{3}{4}$ of the first pizza and $\frac{1}{2}$ of the second pizza. Which of the following models the pizza that was left?



- 4** Between getting home from school and going to bed, Logan spends $\frac{1}{2}$ of his time playing with his friends and $\frac{1}{5}$ of his time doing homework. Which of the following expressions represents the amount of time he spent playing and doing homework?

F $\frac{1}{2} + \frac{1}{5}$ **H** $\frac{1}{2} - \frac{1}{5}$
G $\frac{2}{5} - \frac{1}{2}$ **J** $2 + \frac{2}{10}$

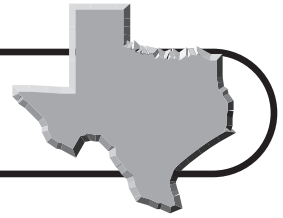
- 5** Kyra wants to buy a digital camera. So far, she has earned $\frac{1}{2}$ of the money needed for the camera baby-sitting and $\frac{1}{3}$ of the money needed doing yard work. Which model can be used to represent the fraction of money Kyra has earned toward buying a digital camera?



- 6** Which situation matches the expression below?

$$\frac{3}{4} - \frac{2}{3}$$

- F** Roger had $\frac{3}{4}$ foot of wood. He bought $\frac{2}{3}$ foot more for a frame.
- G** Roger had $\frac{3}{4}$ foot of wood. He used $\frac{2}{3}$ of it for a frame.
- H** Roger had $\frac{3}{4}$ foot of wood. He used $\frac{2}{3}$ foot for a frame.
- J** Roger had $\frac{3}{4}$ foot of pine and $\frac{2}{3}$ foot of oak wood.



TAKS Practice (continued)

(6.2)(B) Number, operation, and quantitative reasoning The student adds, subtracts, multiplies, and divides to solve problems and justify solutions. The student is expected to use addition and subtraction to solve problems involving fractions and decimals.

- 1** On Monday morning, $\frac{1}{3}$ of the students in Kelsey's class walked to school, $\frac{1}{4}$ of the students were driven to school, and the rest of the class rode the school bus. What fraction of her classmates rode the bus?

A $\frac{2}{7}$
B $\frac{3}{7}$
C $\frac{5}{12}$
D $\frac{7}{12}$

- 2** Mr. Fisher had a garage sale. He sold $\frac{1}{4}$ of his lawn equipment on Saturday and $\frac{2}{3}$ of the lawn equipment on Sunday. Which fraction of his lawn equipment was NOT sold?

F $\frac{1}{12}$
G $\frac{11}{12}$
H $\frac{8}{12}$
J 12

- 3** Michelle baked 3 dozen cookies for a bake sale. She burned $\frac{1}{4}$ of the cookies and had to throw them out. Which fraction of the cookies was left?

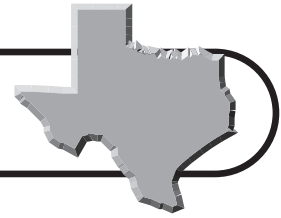
A $\frac{1}{8}$
B $\frac{1}{3}$
C $\frac{1}{2}$
D $\frac{3}{4}$

- 4** Jenna stops at a convenience store. She wants to buy a drink for \$1.29, a bag of nuts for \$0.99, a loaf of bread for \$1.89, and a pen for \$1.29. The tax was \$0.44. She discovers she has only \$5. How much more money does Jenna need to buy all of the items?

F \$0.35
G \$0.44
H \$0.46
J \$0.90

- 5** Harley exercises 3 days a week. He usually runs 4.2 miles on Monday, 3.6 miles on Tuesday, and 5.1 miles on Thursday. How many miles does he run in a week?

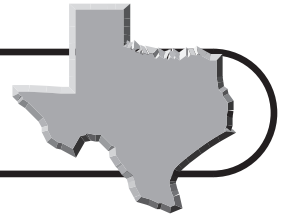
A 12.9
B 11.9
C 11.8
D 8.02



TAKS Practice (continued)

(6.2)(C) Number, operation, and quantitative reasoning The student adds, subtracts, multiplies, and divides to solve problems and justify solutions. The student is expected to use multiplication and division of whole numbers to solve problems including situations involving equivalent ratios and rates.

- 1 Gwen bought 3 pairs of shoes for a total of \$120. What was the price of one pair of shoes?
A \$30
B \$35
C \$40
D \$45
- 2 Mr. Cameron drove his boat on Lake Buchanan at a speed of 15 miles per hour. At this rate, how long will it take him to go 30 miles?
F 2 h
G 2.5 h
H 3 h
J 3.5 h
- 3 Alyssa packed a total of 30 boxes in 3 hours. At this rate, how many boxes can Alyssa pack in 5 hours?
A 10
B 30
C 50
D 80
- 4 If 32 pencils cost \$4, how many pencils can be purchased for \$6?
F 42
G 48
H 60
J 72
- 5 A local car dealer has 4 cars for every 1 truck. If the car dealer has 300 cars, how many trucks does it have?
A 50
B 65
C 75
D 90
- 6 Joy bought 3 CDs for \$45. How much did she spend for 1 CD if all CDs cost the same amount?
F \$12
G \$15
H \$18
J \$21
- 7 On a math test, Kevin had 26 correct answers and 4 incorrect answers. What was the ratio of correct answers to the total number of questions?
A 26 of 30
B 30 of 26
C 4 of 26
D 4 of 30
- 8 Latoya has a book collection of 252 books. Her bookcase has 12 shelves. If she wants an equal number of books on each shelf, how many books will Latoya put on each shelf?
F 15
G 21
H 28
J 32

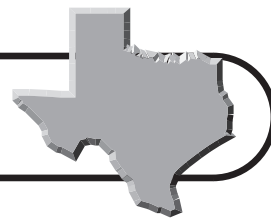


TAKS Practice (continued)

(6.2)(D) Number, operation, and quantitative reasoning The student adds, subtracts, multiplies, and divides to solve problems and justify solutions. The student is expected to estimate and round to approximate reasonable results and to solve problems where exact answers are not required.

- 1 Mrs. Calkin's sixth grade class went on a field trip to Bastrop State Park. Each of the 38 students was given a souvenir from the park that weighed about 2 pounds. About how much did all of the souvenirs weigh altogether?
A 50 lb
B 65 lb
C 70 lb
D 75 lb
- 2 The Texas Photography Club is preparing for its monthly meeting. The organizers are placing a photography brochure on each of the chairs in the meeting room. If there are 12 rows of chairs, with 14 chairs in each row, about how many brochures will they need to place on the chairs in all?
F 100
G 125
H 170
J 200
- 3 Mr. Green needs two extension cords to connect to his lawn edger. The length of one cord is 25 feet. If he needs to reach a length of 70 feet, about how long does the second cord need to be?
A 25 ft
B 35 ft
C 40 ft
D 50 ft

- 4 Carly's cat eats 14 cups of food every week. About how many cups of food does Carly's cat eat in 24 weeks?
F 250
G 300
H 350
J 400
- 5 Jamie runs 15 miles a week. At this rate, about how many miles will Jamie run in one year?
A 1,000
B 850
C 750
D 600
- 6 Celia is making a dessert for a party. One serving of Celia's dessert has 347 calories. About how many calories are in 3 servings?
F 900
G 1,100
H 1,500
J 1,900
- 7 Dick is on a 263-mile bike trip. He has already biked 147 miles. What is a reasonable estimate of the number of miles that Dick has left to bike ?
A 400
B 200
C 110
D 50



TAKS Practice

OBJECTIVE 2

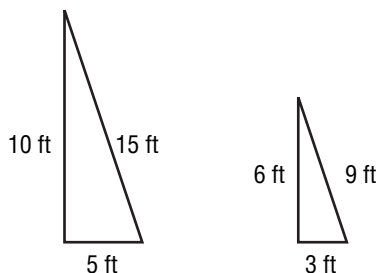
Read each question and choose the correct answer for each question.

(6.3)(A) Patterns, relationships, and algebraic reasoning The student solves problems involving direct proportional relationships. The student is expected to use ratios to describe proportional situations.

- 1** Kaiko is making dinner for her family. Including Kaiko, 5 family members do not like broccoli, and 4 others do. Which ratio shows the number of family members who do not like broccoli compared to the total number of family members?

A $\frac{4}{5}$ **C** $\frac{5}{9}$
B $\frac{9}{5}$ **D** $\frac{4}{9}$

- 2** The triangles shown below are similar.



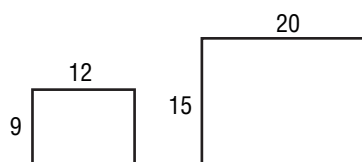
What is the ratio of a side length of the smaller triangle to the corresponding side length of the larger triangle?

F 3 to 4
G 5 to 3
H 4 to 5
J 3 to 5

- 3** A Dallas radio station asked its listeners for their views on vending machines in school cafeterias. Of the callers, 31 said yes and 39 said no. Which ratio shows the number of yes votes to the total number of people that voted?

A $\frac{31}{70}$
B $\frac{40}{39}$
C $\frac{31}{100}$
D $\frac{39}{100}$

- 4** The rectangles below are similar.

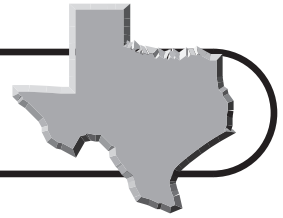


What is the ratio of the dimensions of the larger rectangle to the dimensions of the smaller rectangle?

F 5 to 3
G 3 to 5
H 3 to 4
J Not here

- 5** The Eagles scored 34 points and the Falcons scored 28 points in a football game. Which ratio shows the number of points scored by the Eagles to the total number of points scored by both teams?

A $\frac{34}{62}$
B $\frac{28}{62}$
C $\frac{62}{34}$
D $\frac{28}{100}$

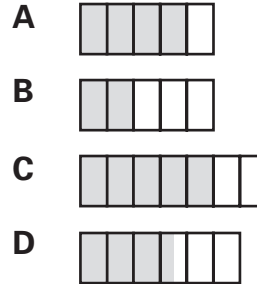


TAKS Practice (continued)

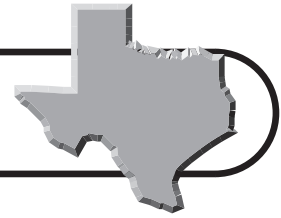
(6.3)(B) Patterns, relationships, and algebraic reasoning The student solves problems involving direct proportional relationships. The student is expected to represent ratios and percents with concrete models, fractions, and decimals.

- 1** Students in the Houston Book Club decided to read either a science fiction book or a nonfiction book. Of the 26 students in the club, 12 will read the science fiction book and 14 will read the nonfiction book. Which ratio shows the students who will read a science fiction book to the total number of students in the club?
- A** $\frac{6}{13}$
B $\frac{13}{6}$
C $\frac{31}{40}$
D $\frac{14}{6}$
- 2** Maddie took a science test with 50 questions. She scored 84%. Which of the following represents the percentage of questions she answered correctly?
- F** 0.084 **H** 0.50
G 0.48 **J** 0.84
- 3** By 8 P.M., Jasmine had completed 95% of her homework. What fractional part of the homework had NOT been completed?
- A** $\frac{1}{20}$
B $\frac{5}{90}$
C $\frac{5}{20}$
D $\frac{5}{1}$

- 4** On Monday, 60% of the students in Mrs. Hower's class stayed for an after-school program. Which rectangle has 60% of its total area shaded?



- 5** Jeremy had 20 sheets of paper. Lisa borrowed 40% of the paper. What decimal represents the percent of Jeremy's paper that Lisa borrowed?
- A** 0.20
B 0.25
C 0.30
D 0.40
- 6** Jeremy missed 25% of his free throws during basketball practice. What fractional part of the free throws did he make?
- F** $\frac{1}{75}$
G $\frac{1}{4}$
H $\frac{3}{4}$
J $\frac{75}{1}$

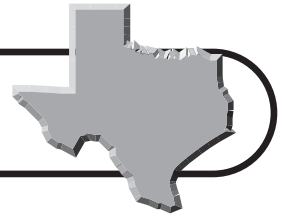


TAKS Practice (continued)

(6.3)(C) Patterns, relationships, and algebraic reasoning The student solves problems involving direct proportional relationships. The student is expected to use ratios to make predictions in proportional situations.

- 1 There are 8 children for every 3 adults at the skating rink. If there are 24 children at the skating rink, how many adults are there?
A 3
B 8
C 9
D 24
- 2 Tyrell entered a bubblegum blowing contest. He can blow 9 bubbles in 90 seconds. If he continues to blow bubblegum bubbles at this rate, how many bubbles can he blow in 3 minutes?
F 9
G 18
H 27
J 90
- 3 The ratio of cars to bikes on Shoal Creek Trail is about 10 to 6. If there are 20 cars, about how many bikes would there be?
A 10
B 12
C 25
D 60
- 4 At Kevin's martial arts class, there are 2 instructors for every 30 students. If there are 120 students enrolled, how many instructors would there be?
F 18
G 12
H 8
J 4

- 5 Maya wants to build a patio that is twice the size of Peter's patio. The dimensions of Peter's patio are 8 feet by 6 feet. What would be the dimensions of Maya's patio?
A $4\text{ft} \times 3\text{ft}$
B $8\text{ft} \times 12\text{ft}$
C $16\text{ft} \times 6\text{ft}$
D $16\text{ft} \times 12\text{ft}$
- 6 Justin noticed that an orchard had planted two apple trees for every three cherry trees planted. If the orchard wants to keep that ratio, how many apple trees would be planted if 15 cherry trees were planted?
F 10
G 8
H 5
J 4



TAKS Practice (continued)

(6.4)(A) Patterns, relationships, and algebraic reasoning The student uses letters as variables in mathematical expressions to describe how one quantity changes when a related quantity changes. The student is expected to use tables and symbols to represent and describe proportional and other relationships such as those involving conversions, arithmetic sequences with a constant rate of change, perimeter, and area.

- 1 At Melissa's dance school, there is 1 instructor for every 12 students. There are 72 students at the dance school. Which proportion can be used to find t , the number of instructors?

A $\frac{t}{72} = \frac{1}{12}$

B $\frac{t}{72} = \frac{12}{1}$

C $\frac{1}{72} = \frac{12}{t}$

D $\frac{1}{t} = \frac{12}{72}$

- 2 The table shows the amount of profit a diner makes for every breakfast bar it sells.

Breakfast Bars

Number Sold (n)	Profit (\$)
1	\$0.50
2	\$1.00
3	\$1.50
4	\$2.00

Which expression best represents the profit in relation to the number of breakfast bars sold?

F $n + 0.50$

G $n \times 0.50$

H $2n$

J $n + 2$

- 3 Gino's age compared to Jenna's age can be represented by the expression $y + 3$. Which table shows this relationship over 5 consecutive years?

A

Jenna's Age, y (years)	Gino's Age, x (years)
5	9
6	10
7	11
8	12

B

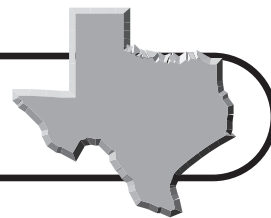
Jenna's Age, x (years)	Gino's Age, y (years)
9	7
10	8
11	9
12	10

C

Jenna's Age, y (years)	Gino's Age, x (years)
5	8
6	9
7	10
8	11

D

Jenna's Age, y (years)	Gino's Age, x (years)
5	2
6	3
7	4
8	5



TAKS Practice (continued)

(6.4)(B) Patterns, relationships, and algebraic reasoning The student uses letters as variables in mathematical expressions to describe how one quantity changes when a related quantity changes. The student is expected to use tables of data to generate formulas representing relationships involving perimeter, area, volume of a rectangular prism, etc.

- 1 The table shows the measurement for 3 rectangles.

Perimeter of Rectangles (cm)

Width	Length	Perimeter
4	5	18
4	6	20
4	7	22

Which formula can be used to find P , the perimeter of a rectangle that has a length of 10 centimeters and a width of 4 centimeters?

- A** $P = 4 + 4 \times 10$
B $P = 2 \times 4 + 2 \times 10$
C $P = 4 + 10$
D $P = 2 + 10$

- 2 An art gallery in Dallas is hanging paintings on a wall.

Painting Sizes

Width (ft)	Length (ft)	Area (sq ft)
4	5	20
4	6	24
4	7	28

Which formula can be used to find A , the area of a painting that has a width of 2 feet and a length of 6 feet?

- F** $A = 6 \times 2$
G $A = 2 + 6 \times 2$
H $A = 2 + 2 + 6$
J $A = 2 \times 2 + 2 \times 6$

- 3 The table below shows the height and base measurements of triangles.

Area of Triangles

Height (units)	Base (units)
8	4
8	6
8	8
8	10
8	n

Which expression can be used to find the area of a triangle?

- A** $8n + 2$ **C** $\frac{8n}{4}$
B $\frac{8n}{2}$ **D** $\frac{8}{n}$

- 4 Which expression can be used to find the value of a term in the sequence below?

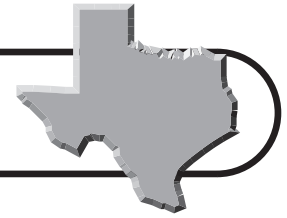
Sequence

Position, n	Value of Term
5	15
6	18
7	21
8	24
9	27
n	

- F** $n - 3$ **H** $3n$
G $n + 9$ **J** $n + 3$

- 5 Mr. Landon is putting new carpet in his living room. The length of the room is 20 feet and the width is 12 feet. Which formula can Mr. Landon use to find P , the perimeter of the living room?

- A** $P = 2 + 20 \times 2$
B $P = 2 + 20 \times 12$
C $P = 2 + 20 + 12$
D $P = 2 \times 20 + 2 \times 12$



TAKS Practice (continued)

(6.5)(A) Patterns, relationships, and algebraic reasoning The student uses letters to represent an unknown in an equation. The student is expected to formulate equations from problem situations described by linear relationships.

- Jennifer bought 3 dozen cookies for a birthday party. All but 5 of the cookies were eaten. Which equation can be used to find c , the number of cookies that were eaten?
A $c = (3 \times 12) - 5$
B $c = 3 \times 12 - 5 \times 12$
C $c = 3 \times 12$
D $c = 3 \times (12 - 5)$
- Matthew had \$50 for his trip to Fiesta, Texas. He bought 2 ride tickets that cost \$5.50 each. Then he spent \$9 for food. Which equation can be used to find x , the amount of money Matthew has left?
F $x = 50.00 - 5.50 - 9$
G $x = 50.00 + 5.50 - 9$
H $x = 50.00 - (2 \times 5.50) - 9$
J $x = 50.00 - (2 \times 5.50) + 9$
- The table below shows Cami's age compared to her sister Julie's age at different times.

Ages	
Cami's Age (c)	Julie's Age (s)
2	7
5	10
9	14
13	18
16	

If c represents Cami's age, which equation can be used to find s , Julie's age?

- A** $s = c - 5$ **C** $s = c + 5$
B $c = s + 3$ **D** $s = c + 3$

- Raul goes to a music store and buys 2 compact discs for \$14.95 each, 3 guitar picks for \$0.50 each, and one songbook for \$10.95. He pays for the items with a \$50 bill. Without tax, which equation can be used to find m , the amount of change Raul should receive?

- F** $m = 50 - 14.95 - 0.50 - 10.95$
G $m = 50 - 2 \times (14.95 + 0.50) - 10.95$
H $m = 50 - (2 \times 14.95) - (3 \times 0.50) - 10.95$
J $m = (2 \times 14.95) + (3 \times 0.50) + 10.95$

- Balloons at the Party Store cost \$1.50 each, plus a one-time cost of \$3 to have the balloons filled with helium. Which equation can be used to find c , the cost of filled balloons for b balloons?

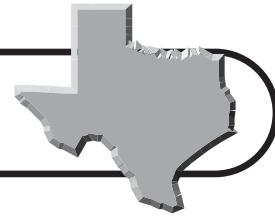
- A** $c = 3b + 1.50$
B $c = 1.50(b + 3)$
C $c = 1.50b + 3$
D $c = 3(b + 1.50)$

- An adult meal at a restaurant costs one dollar less than twice the cost of c , a children's meal. Which equation can be used to find a , the cost of an adult meal?

- F** $a = c - 2$
G $a = c + 2$
H $a = 2c - 1$
J $a = 2c + 1$

- Sonia and her brother each rented a bicycle for an hourly rate of \$20 each. Which equation can be used to find c , the cost of renting both bicycles for 3 hours?

- A** $c = 3 \times (2 \times 20)$
B $c = 20 \times 3$
C $c = 3 \times 20 + 2$
D Not here



TAKS Practice

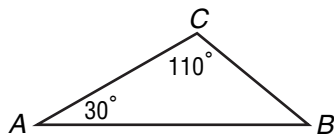
OBJECTIVE 3

Read each question and choose the correct answer for each question.

(6.6)(A) Geometry and spatial

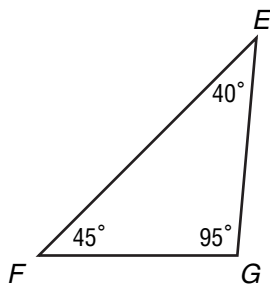
reasoning The student uses geometric vocabulary to describe angles, polygons, and circles. The student is expected to use angle measurements to classify angles as acute, obtuse, or right.

- 1 What type of angle is $\angle B$?



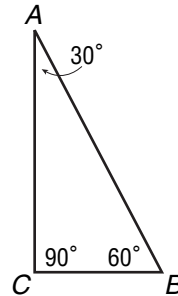
- A Acute
- B Obtuse
- C Right
- D Straight

- 2 What type of angle is $\angle G$?



- F Obtuse
- G Right
- H Straight
- J Acute

- 3 What type of angle is $\angle C$?



- A Acute
- B Obtuse
- C Right
- D Straight

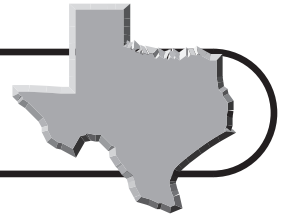
- 4 What type of angle is formed by the hands of the clock below?



- F Acute
- G Obtuse
- H Right
- J Straight

- 5 Mr. Navarro needs to fix some boards in his attic. Two of the boards form an obtuse angle. Which of the following could be a measure of the angle?

- A 45°
- B 75°
- C 85°
- D 95°

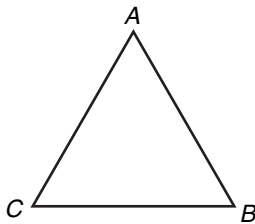


TAKS Practice (continued)

(6.6)(B) Geometry and spatial reasoning

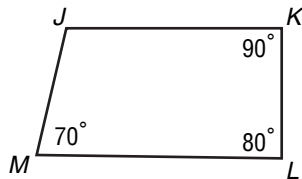
The student uses geometric vocabulary to describe angles, polygons, and circles. The student is expected to identify relationships involving angles in triangles and quadrilaterals.

- 1 $\angle A$ and $\angle B$ both are angles measuring 60° .
What is the measure of $\angle C$?



- A 40° C 60°
B 50° D 70°

- 2 Tracey drew a quadrilateral.



What is the measure of $\angle J$?

- F 85° H 105°
G 95° J 120°

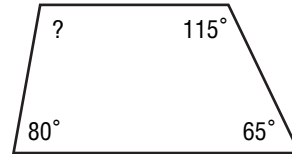
- 3 A triangle has angles measuring 23° and 79° . What is the measure of the third angle?

- A 113° C 90°
B 108° D 78°

- 4 A quadrilateral has angles measuring 50° , 80° , and 60° . What is the measure of the fourth angle?

- F 170° H 150°
G 160° J 125°

- 5 Jan has a piece of land that is in the shape of a trapezoid. The sides of the property form angles measuring 115° , 80° , and 65° .



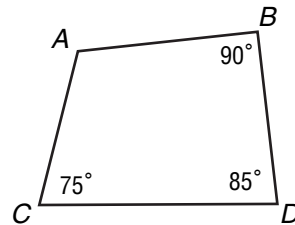
What is the measure of the fourth angle?

- A 65° C 100°
B 85° D 110°

- 6 If two angles of a triangle measure 72° and 60° , what is the measure of the third angle?

- F 48° H 60°
G 50° J 72°

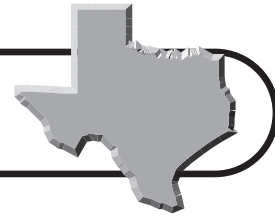
- 7 In quadrilateral $ABCD$, what is the measure of $\angle A$?



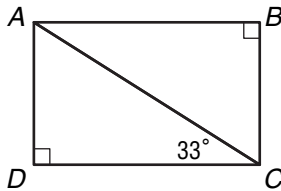
Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

				.		
0	0	0	0		0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9

TAKS Practice (continued)



- 8 $ABCD$ is a rectangle.



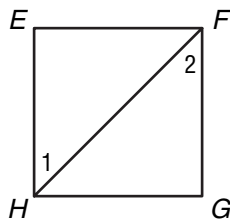
What is the measure of $\angle CAB$?

- F** 180°
G 90°
H 57°
J 33°

- 9 Mrs. Everett has a flowerbed in her yard in the shape of a quadrilateral. The sides of the flowerbed form angles measuring 70° , 80° , and 110° . What is the measure of the fourth angle?

- A** 75°
B 80°
C 90°
D 100°

- 10 Lynn is measuring the angles in the figure below.



What is the measure of $\angle GFH$?

- F** 45°
G 55°
H 65°
J 75°

(6.6)(C) Geometry and spatial

reasoning The student uses geometric vocabulary to describe angles, polygons, and circles. The student is expected to describe the relationship between radius, diameter, and circumference of a circle.

- 1 Delia has a circular terrarium that has a diameter of d inches.



Which expression can be used to find the approximate circumference of the terrarium?

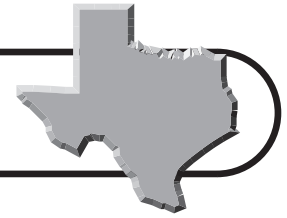
- A** $\pi \left(\frac{1}{2} + d\right)$
B $\pi d \div 2$
C $\pi \times d - r$
D $\pi \times d$

- 2 Which expression can be used to find the diameter of a circle with an approximate circumference of 26 inches?

- F** 26×3.14 **H** $26 \div 4$
G $26 \div 3.14$ **J** $26 \times 3.14 + 2$

- 3 The diameter of a circular patio 30 feet. If Manuel walks around the outside edge of the patio, about how far will he walk?

- A** 188.4 ft **C** 18.8 ft
B 94.20 ft **D** 9.4 ft



TAKS Practice (continued)

- 4 The clock on the University of Texas tower has an approximate diameter of 12 feet. What is the approximate circumference of the clock?

F 12 ft
G 36 ft
H 24 ft
J 3.14 ft

- 5 A store in the outlet mall in San Marcos has a round mirror for sale. The diameter of the mirror is about 6 feet. How does the diameter compare to the circumference of the mirror?

A The diameter is about 2 times the circumference.
B The diameter is about 5 times the circumference.
C The diameter is about $\frac{1}{3}$ the circumference.
D The diameter is about $\frac{1}{2}$ the circumference.

- 6 If the diameter of a circle is 12 inches, what is the measure of its radius?

F 3 in.
G 4 in.
H 6 in.
J 12 in.

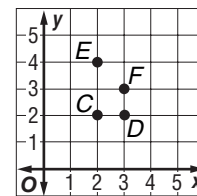
- 7 Leticia is putting together a circular puzzle that has a diameter of 12 inches. Which expression can be used to find the circumference of the puzzle?

A $C = 12\pi$
B $C = 4\pi$
C $C = 6\pi$
D $C = 8\pi$

(6.7)(A) Geometry and spatial reasoning

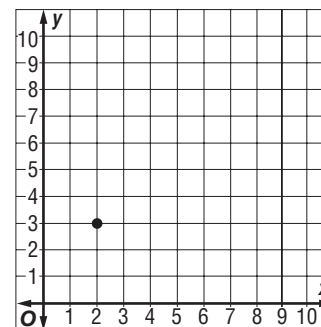
The student uses coordinate geometry to identify location in two dimensions. The student is expected to locate and name points on a coordinate plane using ordered pairs of non-negative rational numbers.

- 1 Which point best represents the location of the ordered pair (3, 2)?



A Point C
B Point D
C Point E
D Point F

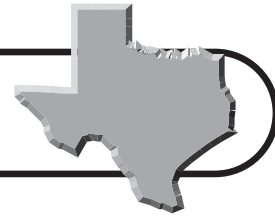
- 2 Kristy is drawing a rectangle on a coordinate grid. The rectangle has one pair of parallel sides that are 6 units long and another pair of sides that are 2 units long. One of the vertices is at (2, 3).



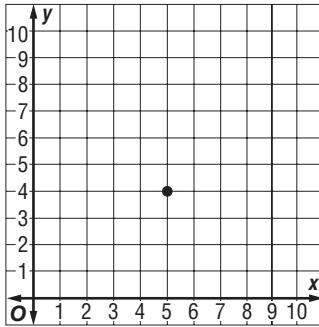
Which coordinates represent the other three vertices of the rectangle?

F (3, 7), (5, 2), (5, 6)
G (2, 6), (5, 3), (4, 5)
H (4, 5), (2, 6), (5, 6)
J (2, 9), (4, 3), (4, 9)

TAKS Practice (continued)

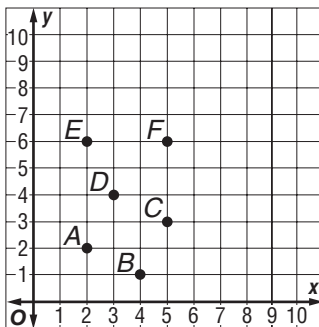


- 3 Adrian is drawing a rectangle on a coordinate grid. The rectangle will be 3 units long and 2 units wide. One of the vertices will be at (5, 4).



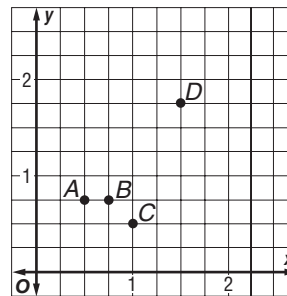
Which coordinates represent the other three vertices of the rectangle?

- A** (3, 4), (4, 5), (2, 4)
B (3, 1), (5, 1), (3, 4)
C (3, 1), (4, 2), (3, 5)
D (2, 1), (3, 5), (2, 4)
- 4 Which coordinate pair represents point *E* on the grid below?



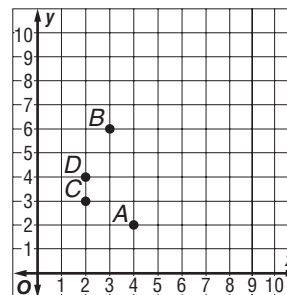
- F** (2, 5)
G (2, 4)
H (3, 6)
J (2, 6)

- 5 Which point on the grid below corresponds to the coordinate pair $(\frac{1}{2}, \frac{3}{4})$?



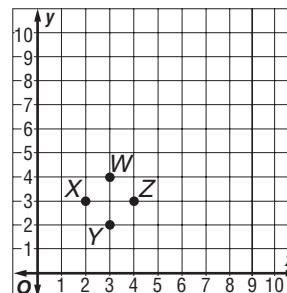
- A** Point *A* **C** Point *C*
B Point *B* **D** Point *D*

- 6 Which point best represents the location of the ordered pair (2, 4)?

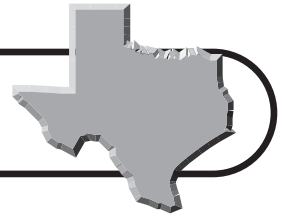


- F** Point *A* **H** Point *C*
G Point *B* **J** Point *D*

- 7 Faraji wants to find the location of an ordered pair. Which point best represents the location of the ordered pair (3, 2)?



- A** Point *W* **C** Point *Y*
B Point *X* **D** Point *Z*



TAKS Practice

OBJECTIVE 4

Read each question and choose the correct answer for each question.

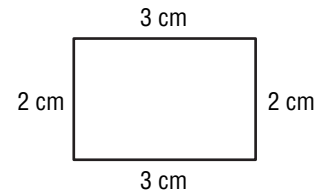
(6.8)(A) Measurement The student solves application problems involving estimation and measurement of length, area, time, temperature, volume, weight, and angles. The student is expected to estimate measurements (including circumference) and evaluate reasonableness of results.

- 1 Amanda weighs 78 pounds, and Sara weighs 73 pounds. What is a reasonable estimate of how much Amanda and Sara weigh together?
 - A 150 lbs
 - B 140 lbs
 - C 130 lbs
 - D 120 lbs

- 2 Bailey planned to spend 4 hours at Barton Springs Pool. If she has already been swimming for 45 minutes, about how much time does she have left to swim?
 - F 1 h
 - G 2 h
 - H 3 h
 - J 4 h

- 3 Ethan is helping his father build a deck. He has one board that measures 8 feet 5 inches long and another board measuring 6 feet 8 inches long. About how much longer is the first board than the second board?
 - A 1 ft
 - B 2 ft
 - C 3 ft
 - D 4 ft

- 4 Terri drew a rectangle on a sheet of paper. Which is a reasonable estimate of the area of the rectangle?



- | | |
|----------------------------|----------------------------|
| F 3 cm ² | H 5 cm ² |
| G 4 cm ² | J 6 cm ² |

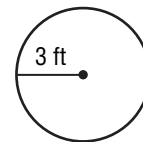
- 5 Ryan left on a flight from Dallas at 1:30 P.M. He returned to Dallas at 8:20 P.M. About how many hours elapsed between the time he left Dallas and the time he returned?

- | | |
|--------------|--------------|
| A 5 h | C 7 h |
| B 6 h | D 8 h |

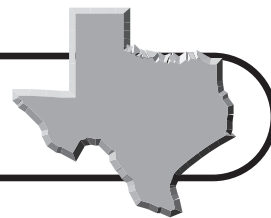
- 6 Mr. Jacobs drew a circle on the board. The circumference is about 24.8 centimeters. What might be the length of its radius?

- | | |
|---------------|----------------|
| F 4 cm | H 8 cm |
| G 6 cm | J 10 cm |

- 7 What is the approximate circumference of the circle shown below?



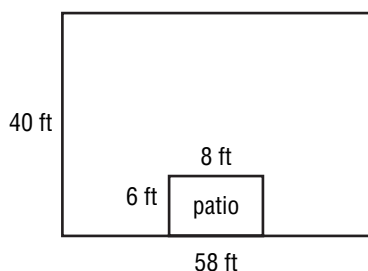
- | | |
|--------------------------------|--------------------------------|
| A 18.84 ft | C 30.84 ft ² |
| B 20.30 ft ² | D 37.68 ft ³ |



TAKS Practice (continued)

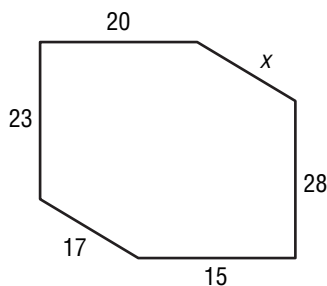
(6.8)(B) Measurement The student solves application problems involving estimation and measurement of length, area, time, temperature, volume, weight, and angles. The student is expected to select and use appropriate units, tools, or formulas to measure and to solve problems involving length (including perimeter), area, time, temperature, volume, and weight.

- 1 Below is a diagram of Neil's backyard.



Neil plans to plant grass seed in the backyard. What is the area of the backyard that is planted with grass?

- A** 2,320 ft
B 2,272 ft²
C 1,952 ft²
D 1,830 ft³
- 2 The shape below has a perimeter of 125 units.



What is the length of x ?

- F** 2.2 units **H** 28 units
G 22 units **J** 34 units

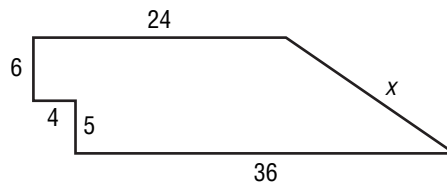
- 3 The table below shows Travis' duties and the amount of time he spent on each task.

Travis' Work Duties

Duty	Time spent
Pick up mail	25 minutes
Wait on customers	3 hours 45 minutes
Go to bank	50 minutes
Clean up shop	1 hour 15 minutes

How much time did Travis spend for all of his work?

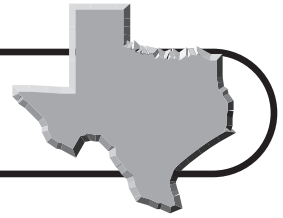
- A** 4 h 45 min **C** 6 h 15 min
B 6 h 25 min **D** 7 h 50 min
- 4 The polygon below has a perimeter of 85 units.



What is the length of x ?

- F** 10 units **H** 24 units
G 19 units **J** 28 units
- 5 Jordan will determine how much sports drink will fit in the large thermos. Which unit is most appropriate to use?

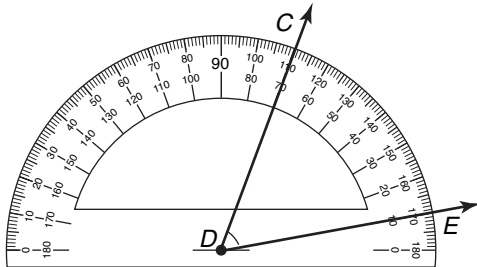
- A** meters
B grams
C kilograms
D millileters



TAKS Practice (continued)

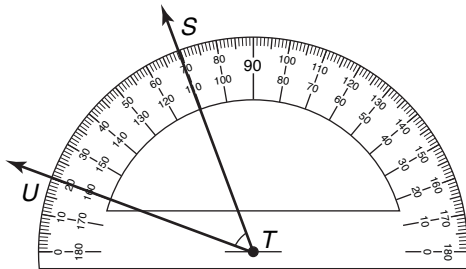
(6.8)(C) Measurement The student solves application problems involving estimation and measurement of length, area, time, temperature, volume, weight, and angles. The student is expected to measure angles.

- 1 What is the measure of $\angle D$ to the nearest degree?



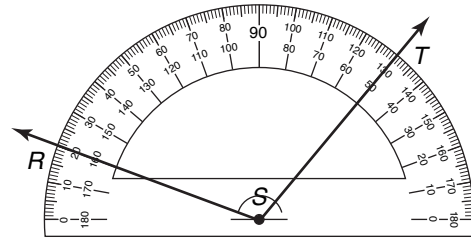
- A 25°
- B 60°
- C 75°
- D 90°

- 2 Find the measure of $\angle T$ to the nearest degree.



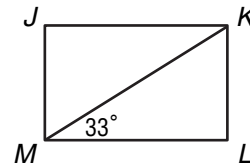
- F 5°
- G 50°
- H 60°
- J 70°

- 3 Find the measure of $\angle S$ to the nearest degree.



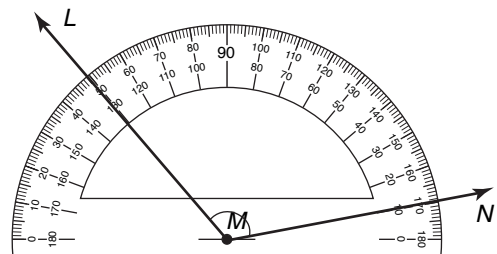
- A 90°
- B 100°
- C 110°
- D 120°

- 4 What is the measure of $\angle KLM$ to the nearest degree?

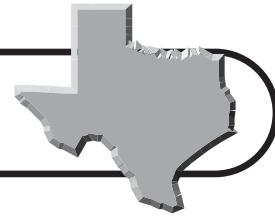


- F 34°
- G 45°
- H 90°
- J 180°

- 5 Find the measure of $\angle M$ to the nearest degree.



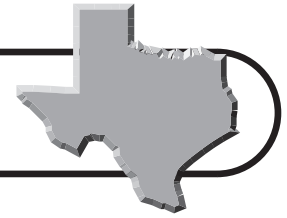
- A 110°
- B 120°
- C 130°
- D 150°



TAKS Practice (continued)

(6.8)(D) Measurement The student solves application problems involving estimation and measurement of length, area, time, temperature, volume, weight, and angles. The student is expected to convert measures within the same measurement system (customary and metric) based on relationships between units.

- 1 In a frog-jumping contest, Mika's frog jumped 20 centimeters. What is this distance in meters?
A 0.2 m **C** 2.2 m
B 2.0 m **D** 20 m
- 2 Ben kept a record of the time he spent running on the Town Lake Hike and Bike Trail last week. He ran for 35 minutes on Sunday, 30 minutes on Monday, 45 minutes on Wednesday, and 35 minutes on Friday. What is the total amount of time Ben ran in hours and minutes?
F 3 h 15 min
G 3 h 5 min
H 2 h 45 min
J 2 h 25 min
- 3 Darnel is buying a guitar case for his new guitar. The guitar is 42 inches long. What is 42 inches expressed in feet and inches?
A 2 ft 6 in.
B 3 ft 6 in.
C 2 ft 3 in.
D 2 ft 4 in.
- 4 David's father is 6 feet tall. How many inches tall is David's father?
F 60 in.
G 465 in.
H 72 in.
J 76 in.
- 5 On Saturday, Rachel practiced playing her violin from 9:00 A.M. to 11:00 A.M. She practiced again in the afternoon from 1:30 P.M. to 2:30 P.M. How many total minutes did Rachel practice her violin on Saturday?
A 60 min **C** 160 min
B 120 min **D** 180 min
- 6 Keith brought three 2-liter bottles of juice to a party. How many milliliters of juice did he bring?
F 2,000 mL **H** 6,000 mL
G 4,000 mL **J** 9,000 mL
- 7 Hannah is buying trim for her sewing projects. She bought 12 yards of trim at one store and 8 yards at another store. How many feet of trim did Hannah buy?
A 36 ft **C** 60 ft
B 48 ft **D** 72 ft
- 8 Kerry is measuring the perimeter of a triangle. The first side is 16 inches long, the second side is 18 inches long, and the third side is 20 inches long. What is the perimeter of the triangle in feet?
F 3 ft **H** 4 ft
G $3\frac{1}{2}$ ft **J** $4\frac{1}{2}$ ft
- 9 Chloe used 3 cups of flour to make cookies. How many ounces of flour did she use?
A 24 oz **C** 40 oz
B 32 oz **D** 48 oz
- 10 Every year, runners compete in the Capitol 10-Kilometer race in downtown Austin. What is the distance of the race in meters?
F 500 m **H** 5,000 m
G 1,000 m **J** 10,000 m



TAKS Practice

OBJECTIVE 5

Read each question and choose the correct answer for each question.

(6.9)(A) Probability and statistics The student uses experimental and theoretical probability to make predictions. The student is expected to construct sample spaces using lists and tree diagrams.

- 1** Jung-Hyan, Raoul, and Franklin are the three best hitters on their baseball team. The coach usually puts them in the first three spots in the batting order, but always changes the order of who bats first, second, and third. Which list shows all the possible ordering of the three best batters?

- A** Jung-Hyan, Raoul, Franklin
Raoul, Franklin, Jung-Hyan
Franklin, Jung-Hyan, Raoul
- B** Raoul, Franklin, Jung-Hyan
Raoul, Jung-Hyan, Franklin
Franklin, Raoul, Jung-Hyan
Jung-Hyan, Raoul, Franklin
Jung-Hyan, Raoul, Franklin
Raoul, Jung-Hyan, Franklin
Raoul, Jung-Hyan, Franklin
- C** Jung-Hyan, Raoul, Franklin
Raoul, Franklin, Jung-Hyan
Franklin, Jung-Hyan, Raoul
Jung-Hyan, Franklin, Raoul
- D** Franklin, Raoul, Jung-Hyan
Raoul, Jung-Hyan, Franklin
Jung-Hyan, Raoul, Franklin
Raoul, Franklin, Jung-Hyan
Jung-Hyan, Franklin, Raoul
Franklin, Jung-Hyan, Raoul

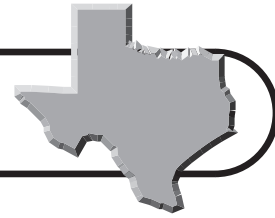
- 2** Seth is arranging his vintage model car collection on a shelf. Which tree diagram shows all of the possible ways of arranging the three cars on the shelf?

- F** Mustang — Corvette — Camero
Corvette — Camero — Mustang
Camero — Mustang — Corvette

- G** Mustang $\begin{cases} \text{Corvette — Camero} \\ \text{Camero — Corvette} \end{cases}$
Corvette $\begin{cases} \text{Mustang — Camero} \\ \text{Camero — Mustang} \end{cases}$
Camero $\begin{cases} \text{Corvette — Mustang} \\ \text{Mustang — Corvette} \end{cases}$

- H** Mustang $\begin{cases} \text{Corvette — Camero} \\ \text{Camero — Corvette} \end{cases}$
Corvette — Mustang — Camero
Camero — Mustang — Corvette

- J** Mustang $\begin{cases} \text{Corvette — Camero} \\ \text{Camero — Corvette} \end{cases}$
Corvette $\begin{cases} \text{Mustang — Camero} \\ \text{Camero — Mustang} \end{cases}$
Camero $\begin{cases} \text{Corvette — Mustang} \\ \text{Mustang — Corvette} \end{cases}$
Mustang — Corvette — Camero



TAKS Practice (continued)

- 3** Nathan has several choices for what he takes to school for lunch. He can choose either a turkey sandwich or a ham sandwich. He can also choose to take an orange, an apple, or grapes. Which list shows all of the possible outcomes of what Nathan can take for lunch?

A Nathan's Lunch

Sandwich	Fruit
Turkey	Orange
Turkey	Apple
Turkey	Grapes
Ham	Orange
Ham	Apple
Ham	Grapes

B Nathan's Lunch

Sandwich	Fruit
Turkey	Apple
Turkey	Grapes
Ham	Orange
Ham	Apple

C Nathan's Lunch

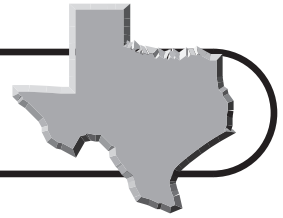
Sandwich	Fruit
Turkey	Orange
Turkey	Banana
Chicken	Grapes
Ham	Orange
Ham	Apple
Tuna	Pear

D Nathan's Lunch

Sandwich	Fruit
Turkey	Orange
Turkey	Apple
Turkey	Orange
Ham	Apple

- 4** Regina chooses 2 marbles from a bag containing 10 blue, 10 green, and 10 red marbles. Which shows all of the possible colors of 2 marbles that Regina can choose?

- F** Blue and green
Blue and red
Red and blue
Green and red
Red and green
Green and blue
- G** Red and blue
Blue and green
Green and red
- H** Red and blue
Green and red
Orange and green
Green and green
Red and red
Blue and blue
- J** Blue and blue
Blue and red
Blue and green
Red and red
Red and green
Green and green



TAKS Practice (continued)

(6.9)(B) Probability and statistics The student uses experimental and theoretical probability to make predictions. The student is expected to find the probabilities of a simple event and its complement and describe the relationship between the two.

- 1** Natalie has a jar of candy. There are 3 red candies, 4 yellow candies, 8 blue candies, and 5 green candies in the jar. If she chooses one piece of candy from the jar without looking, what is the probability that the candy will be yellow?

A $\frac{3}{8}$

C $\frac{2}{5}$

B $\frac{1}{5}$

D $\frac{4}{7}$

- 2** Wes has a number cube numbered 1–6. Which is the probability that he will roll a 3?

F $\frac{1}{12}$

H $\frac{1}{3}$

G $\frac{1}{6}$

J $\frac{1}{16}$

- 3** Erin placed 3 chocolate chip cookies, 2 sugar cookies, and 3 oatmeal cookies in a cookie jar. If she chooses one cookie at random from the jar, what is the probability that the cookie she chooses will not be chocolate chip?

A $\frac{3}{8}$

C $\frac{5}{8}$

B $\frac{1}{2}$

D $\frac{3}{4}$

- 4** Lonny spins a fair spinner that has the numbers 2, 5, 8, 3, 1, and 7 on it. What is the probability that the spinner will land on an even number?

F $\frac{1}{6}$

G $\frac{2}{3}$

H $\frac{5}{6}$

J $\frac{1}{3}$

- 5** Martin reaches into a box to pull out one paperclip without looking. Inside the box, there are 2 red paperclips, 1 blue paperclip, 1 yellow paperclip, and 1 white paperclip. What is the probability that Martin will NOT pull out a red paperclip?

A $\frac{3}{5}$

B $\frac{1}{2}$

C $\frac{2}{3}$

D $\frac{4}{5}$

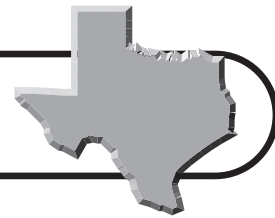
- 6** Madison volunteered to help with a children's party. She filled a decorated box with 10 red toys, 15 blue toys, and 20 yellow toys. Children will select a toy from the box without looking. What is the probability that a child will select a blue toy?

F $\frac{2}{3}$

G $\frac{1}{3}$

H $\frac{1}{20}$

J $\frac{1}{15}$



TAKS Practice (continued)

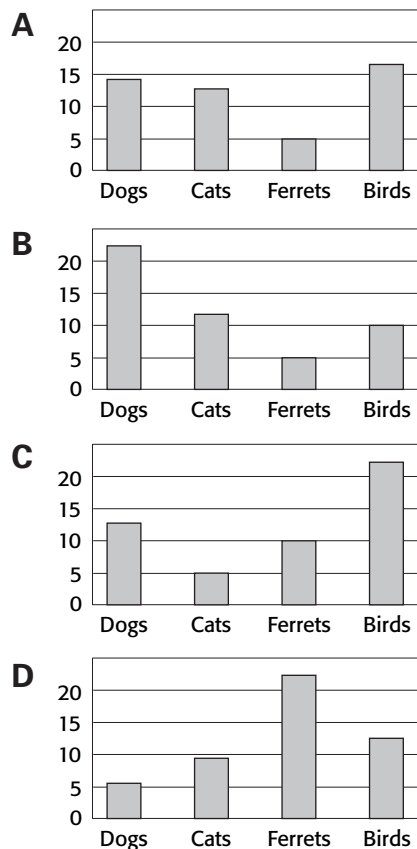
(6.10)(A) Probability and statistics The student uses statistical representations to analyze data. The student is expected to select and use an appropriate representation for presenting and displaying different graphical representations of the same data including line plot, line graph, bar graph, and stem and leaf plot.

- 1 A Galveston pet store has a pet parade every year. The table below shows the number of pets at the pet parade.

Pet Parade

Type of Pet	Number
Dogs	22
Cats	12
Ferrets	5
Birds	10

Which bar graph matches the information in the table?

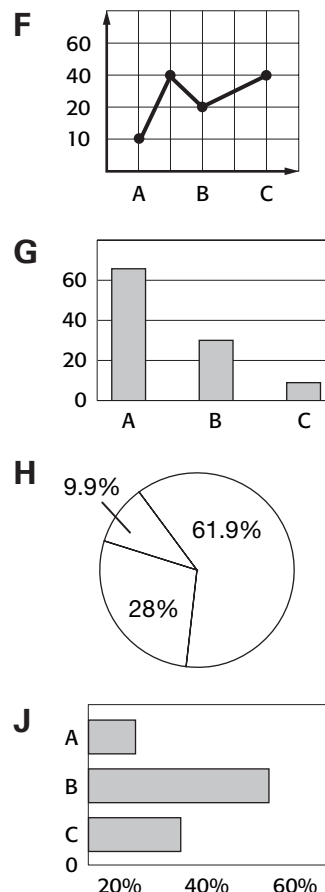


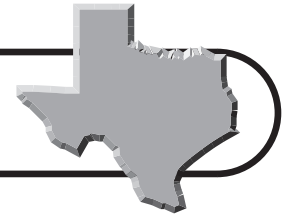
- 2 The table below shows the top three most popular music videos in Texas from 2005 to 2006.

Most Popular Videos

Video	Percentage of People Who Purchased Video
A	61.9%
B	28.2%
C	9.9%

Which graph matches the information in the table?





TAKS Practice (continued)

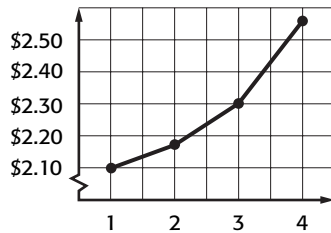
- 3** The table below shows the average price of a gallon of gas at a gas station in Beaumont over a four-week period.

Gasoline Prices

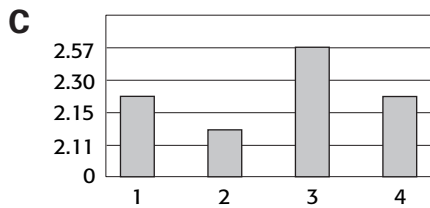
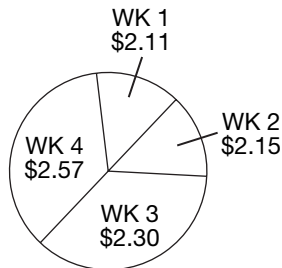
Week	1	2	3	4
Price per Gallon	\$2.11	\$2.15	\$2.30	\$2.57

Which graph matches the data in the table?

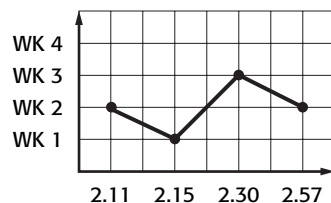
A Gas Prices Over Four Weeks



B Gas Prices Over Four Weeks

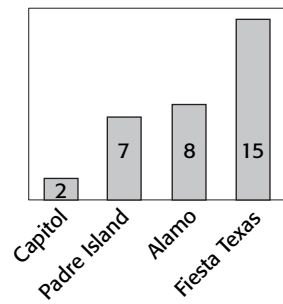


D Gas Prices Over Four Weeks



(6.10)(B) Probability and statistics The student uses statistical representations to analyze data. The student is expected to identify mean (using concrete objects and pictorial models), median, mode, and range of a set of data.

- 1** The students in Mr. Brockman's art class voted on where they would like to go for a field trip. The results of the votes are shown in the graph below.



What is the range of the number of votes?

- A** 15
B 13
C 8
D 7

- 2** Last year, it rained 9 inches across parts of Williamson County. The table below shows how many inches it rained in four different months.

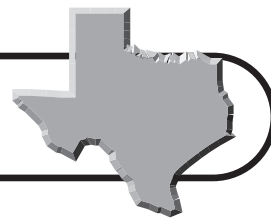
Rainfall Amount

Month	Rain (in.)
March	2
April	2
May	4
June	1

What is the median rainfall for the 4 months?

- F** 4
G 2
H 3
J 1

TAKS Practice (continued)



- 3** Lauren took 9 math quizzes during the first semester. She received the following scores.

86, 83, 85, 92, 90, 95, 93, 88, 91

What is the median of Lauren's quiz scores?

- A** 92
- B** 91
- C** 90
- D** 89

- 4** Frank recorded the high temperature each day over a two-week period.

83°, 84°, 82°, 85°, 90°, 91°, 85°, 88°,
86°, 85°, 87°, 85°, 89°, 90°

What is the mode of the data set?

- F** 91°
- G** 88°
- H** 86°
- J** 85°

- 5** Mandy sells her greeting cards to gift shops. The table below shows how many she sold in six days.

Greeting Card Sales

Day	Number Sold
Monday	10
Tuesday	8
Wednesday	8
Thursday	9
Friday	8
Saturday	15

Which represents the mode of the data set?

- A** 10
- B** 9
- C** 8
- D** 15

(6.10)(C) Probability and statistics The student uses statistical representations to analyze data. The student is expected to sketch circle graphs to display data.

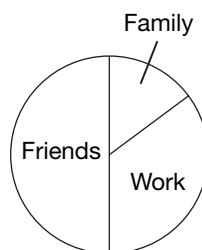
- 1** Jordan talks on her cell phone every day. The table below shows a breakdown of the phone calls she receives.

Jordan's Calls

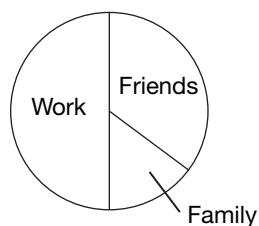
Received Calls	Percentage
Friends	65%
Family	32%
Work	3%

Which circle graph best displays the information shown in the table?

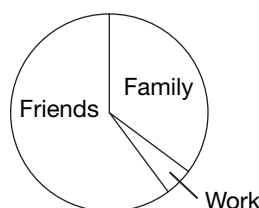
A



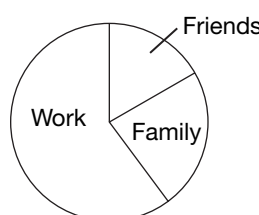
B

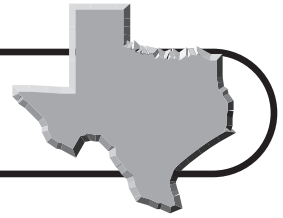


C



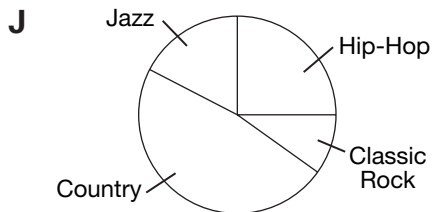
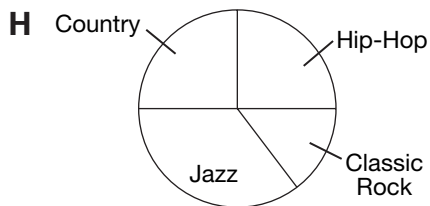
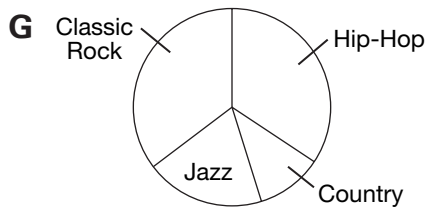
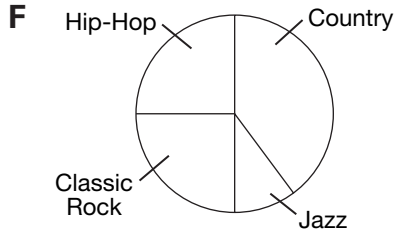
D



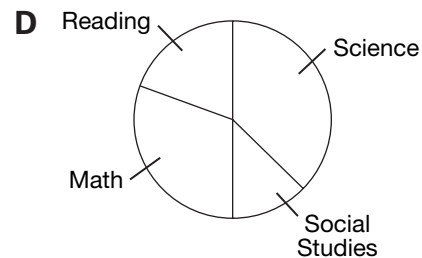
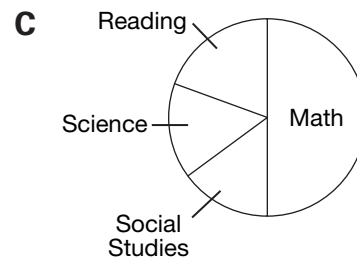
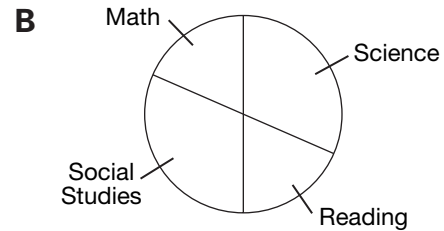
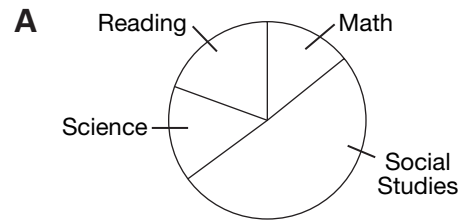


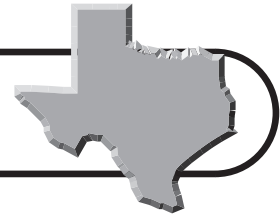
TAKS Practice (continued)

- 2** On a local radio station, 25% of the music played is hip hop, 25% is classic rock, 40% is country, and 10% is jazz. Which graph best represents these data?



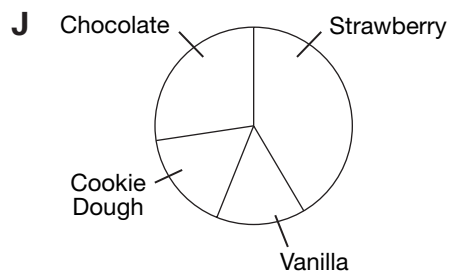
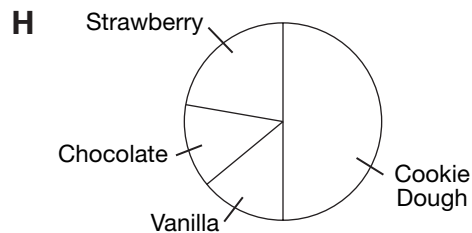
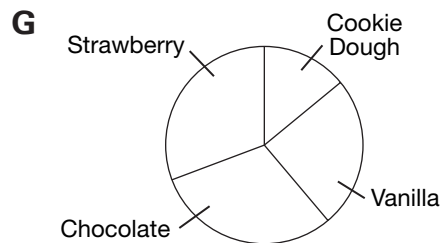
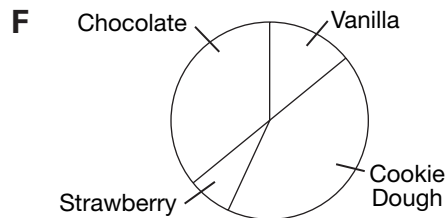
- 3** Tammy surveyed 50 students about their favorite subject in school. Ten students chose reading, 20 chose science, 15 chose math, and 5 chose social studies. Which circle graph matches these data?





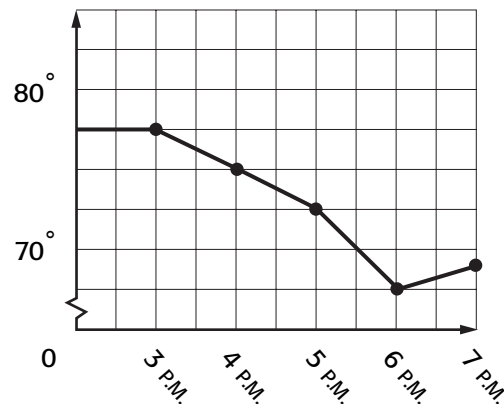
TAKS Practice (continued)

- 4** The middle school is voting on the kind of ice cream they would like served in the school cafeteria. Of the four choices, 30% voted for chocolate, 20% for vanilla, 10% for strawberry, and 40% for cookie dough. Which graph matches these data?



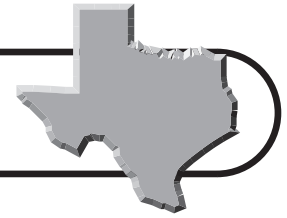
(6.10)(D) Probability and statistics The student uses statistical representations to analyze data. The student is expected to solve problems by collecting, organizing, displaying, and interpreting data.

- 1** The line graph below shows the change in temperature from 3 P.M. to 7 P.M.



Between which two hours did the temperature decrease by the greatest amount?

- A** Between 3 P.M. and 4 P.M.
B Between 4 P.M. and 5 P.M.
C Between 5 P.M. and 6 P.M.
D Between 6 P.M. and 7 P.M.
- 2** What was the change in temperature between 3 P.M. and 7 P.M.?
- F** an increase of 7°F
G a decrease of 4°F
H an increase of 1°F
J a decrease of 7°F

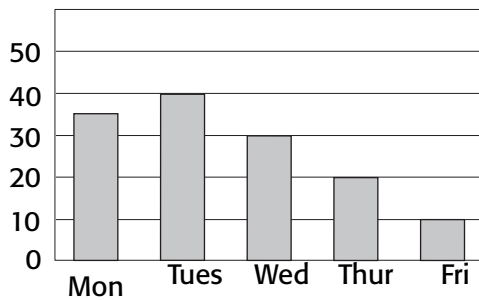


TAKS Practice (continued)

Use the bar graph below to answer questions 3–4.

Roberto conducted a survey to find out how many people who live on his street recycle containers. The bar graph below shows the number of people who recycled each day for 5 days.

People Who Recycle



3 Which two days did people recycle the most?

- F Monday and Tuesday
- G Wednesday and Friday
- H Tuesday and Wednesday
- J Wednesday and Thursday

4 Which statement is true based on the graph?

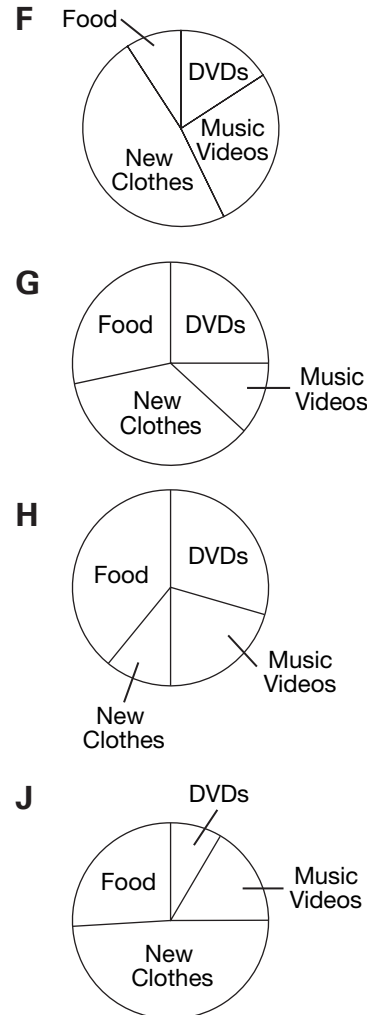
- A More people recycle at the end of the week than at the beginning of the week.
- B More people recycle at the beginning of the week than at the end of the week.
- C The same number of people recycle every day.
- D More people recycle on Wednesday than any other day.

5 Sonya spent her birthday money at the mall on Saturday. The table shows the percent of the money she spent.

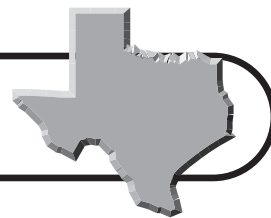
Sonya's Expenses

Expenses	Percent of Money Spent
DVDs	16%
Music Videos	27%
New Clothes	48%
Food	9%

Which circle graph correctly displays the data?

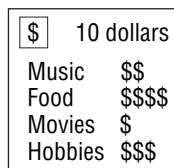


TAKS Practice (continued)



- 5 The amount that Shaun spent weekly on entertainment is shown in the picture graph below.

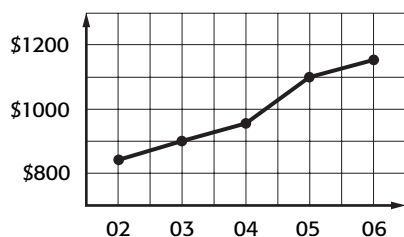
Entertainment Expenses



What is the percentage of money that Shaun spent on food in a week?

- A 50%
B 40%
C 30%
D 20%

- 6 Mr. Griswold's rent increases from one year to the next. The line graph shows the change in rent from the year 2002 to the year 2006.



Between which two years did his rent increase by the greatest amount?

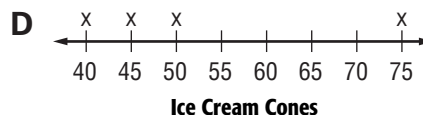
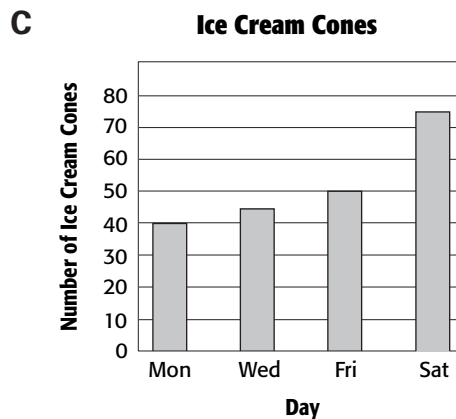
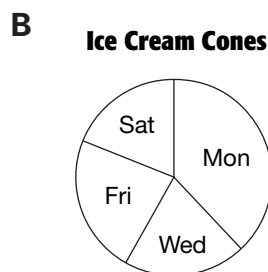
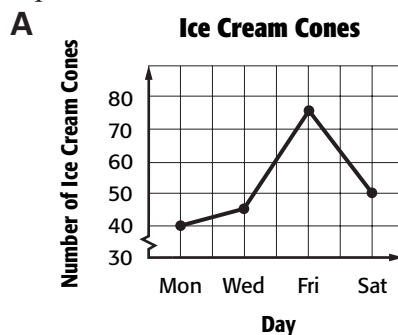
- F Between 2002 and 2003
G Between 2003 and 2004
H Between 2004 and 2005
J Between 2005 and 2006

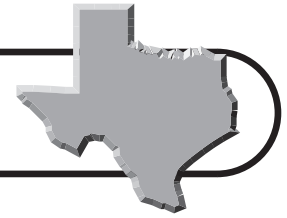
- 7 The table below shows the number of ice cream cones served last week.

Ice Cream Cones

Day	Number of Ice Cream Cones
Monday	40
Wednesday	45
Friday	50
Saturday	75

Which of the following graphs best represents the data?





TAKS Practice

OBJECTIVE 6

Read each question and choose the correct answer for each question.

(6.11)(A) Underlying processes and mathematical tools The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics.

- 1** The Drama Club is painting a small room for the set of a school play. Each of the four walls is 8 feet high and 10 feet long. One gallon of paint will cover about 400 square feet. Which equation can be used to find p , the number of gallons of paint needed to paint the walls of the set?

A $p = \frac{4(8 \times 10)}{4}$

B $p = \frac{4(8 \times 10)}{400}$

C $p = 400(8 \times 10)$

D $p = 400 - (8 \times 10 \times 4)$

- 2** Eva is having her watch repaired. The jewelry store charges \$30 per hour for labor and the repair should take 90 minutes. The repair parts cost \$26. What is the amount Eva should expect to pay for the repairs?

F \$71

H \$81

G \$76

J \$90

- 3** Angie and three of her friends went to the River Walk in San Antonio. They bought 4 T-shirts for \$16.50 each, 1 order of lettuce wraps for \$8.25, and 4 large drinks for \$2.00 each. If the 4 friends split the costs evenly, which equation can be used to find c , the amount of money each friend paid?

A $c = (4 \times 16.50) + 8.25 + 2.00$

B $c = (4 \times 16.50 + 8.25 + 4 \times 2.00) \div 4$

C $c = (4 \times 16.50 + 2.00 + 8.25) \div 4$

D $c = (4 \times 16.50) \div 4 + 8.25 + 2.00$

- 4** Sacha was shopping for a denim jacket. At one store, she found a jacket on sale at 25% off the original price of \$59.00. At another store, the same jacket was on sale for 10% off the original price of \$45.00. What is the lowest price for the jacket?

F \$55.50

G \$44.25

H \$40.50

J \$39.99

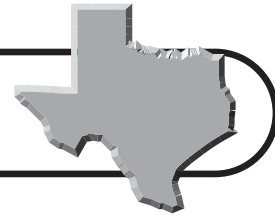
- 5** A handcart can carry up to 400 pounds. Which statement is best supported by this information?

A The handcart can carry twice as many boxes as one person can.

B The handcart can carry more than 10 boxes that weigh 40 pounds each.

C The handcart can carry more than 15 boxes.

D The handcart can carry up to 20 boxes that each weigh as much as 20 pounds.

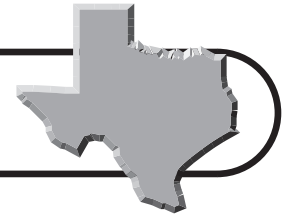


TAKS Practice (continued)

(6.11)(B) Underlying processes and mathematical tools The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.

- 1 Darren used 6.5 gallons of gas driving his car from Marble Falls to Brenham. When he left Marble Falls, his odometer read 5,892.4 miles. When he arrived in Brenham 3 hours later, his odometer read 6,027.9 miles. Which of the following cannot be determined from the information given?
- A The number of miles Darren drove
 - B The time when Darren left Marble Falls
 - C The number of gallons of gas Darren used
 - D Darren's average speed during the trip
- 2 Kaitlyn's sister is buying invitations for a wedding shower. She wants to invite 37 people. Each package of invitations contains 8 cards and costs \$5. How much will Kaitlyn spend on invitations for the shower?
- F \$40
 - G \$30
 - H \$25
 - J \$15

- 3 Mr. Burk spent a total of \$256.84 at the hardware store. He bought a rake for \$29.99, a weed eater for \$99, grass seed for \$19.50, and a wheelbarrow. Not including tax, how much did the wheelbarrow cost?
- A \$148.49
 - B \$108.35
 - C \$100.16
 - D \$49.99
- 4 Zack rode his bike $14\frac{1}{4}$ miles on Saturday and $10\frac{1}{3}$ miles on Sunday. His average speed was 10 miles an hour and he stopped to rest twice. Which of the following cannot be determined from the information given? **G**
- F The miles per hour he biked on Sunday
 - G The number of minutes he stopped and rested
 - H The number of miles he went on Saturday
 - J Zack's average speed on Saturday
- 5 Laurie is buying paper plates and plastic cups for a party. Plates are sold in packages of 12 and cups are sold in packages of 18. What is the fewest number of packages of plates and cups that Laurie can buy to have an equal number of plates and cups?
- A 3 packages of plates and 2 packages of cups
 - B 3 packages of plates and 3 packages of cups
 - C 2 packages of plates and 2 packages of cups
 - D 2 packages of plates and 3 packages of cups



TAKS Practice (continued)

(6.11)(C) Underlying processes and mathematical tools The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem.

- 1 Tyra is responsible for bringing egg rolls to a dinner party for 27 guests. If the egg rolls are sold in packages of 12, what is the fewest number of packages of egg rolls she can buy so that each guest can have 2 egg rolls?
- A 3 packages
 - B 4 packages
 - C 5 packages
 - D 6 packages

- 2 Philip is listing the volume of different cubes in the table below.

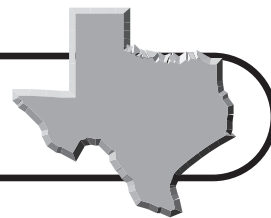
Volume of Cubes

Side Length (in.)	Volume (in. ³)
2	8
3	27
4	64

Which side length and volume comes next in the pattern?

- F 5 in., 25 in.³
- G 5 in., 125 in.³
- H 0.5 in., 20 in.³
- J 5 in., 12.5 in.

- 3 Three friends buy 24 cookies for \$12. Jill paid \$4, Casey paid \$6, and Ashley paid \$2. If each person gets the number of cookies that is proportional to the money paid, which percentage represents the number of cookies Casey has?
- A 60%
 - B 50%
 - C 40%
 - D 20%
- 4 Mr. Allen's car gets an average of 42 miles per gallon of gasoline. The gas tank hold 11 gallons. What procedure would you use to find the number of miles Mr. Allen can drive on 1 full tank of gasoline?
- F Divide the car's average miles per gallon by the number of gallons of gasoline that the gas tank will hold.
 - G Subtract the number of gallons the gas tank can hold from the total number of miles driven for one month.
 - H Multiply the car's average miles per gallon of gasoline by the number of gallons of gasoline the tank can hold.
 - J Add the car's average miles per gallon of gasoline to the number of gallons of gasoline the tank can hold.
- 5 April spent \$50 at the cosmetic counter. She bought perfume for \$25, a bottle of hand lotion for \$15, nail polish for \$4.50, and hair conditioner. How much did the hair conditioner cost?
- A \$3.50
 - B \$5.05
 - C \$5.50
 - D \$6.50



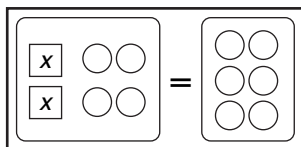
TAKS Practice (continued)

(6.12)(A) Underlying processes and mathematical tools The student communicates about Grade 6 mathematics through informal and mathematical language, representations, and models. The student is expected to communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models.

- 1** The computer club took a trip from San Antonio to Ft. Worth. The trip was 264 miles in length. They stopped one third of the way to fill up with gasoline. Which strategy can be used to find how many miles the club had gone when they stopped to get gasoline?

- A** Multiply 264 by 3
- B** Divide 264 miles by 6.
- C** Divide 264 by 3.
- D** Multiply 65 by 2.

- 2** Which equation does the drawing below represent?

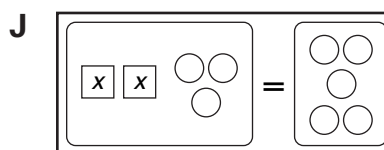
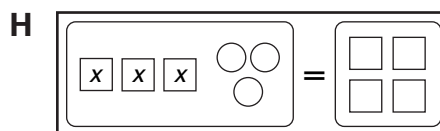
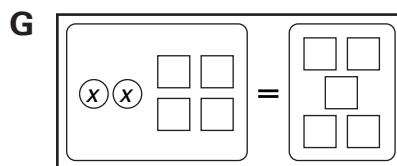
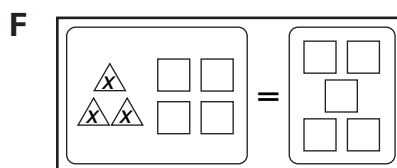


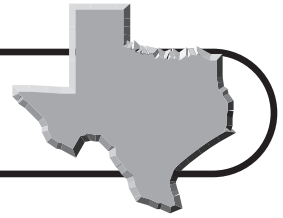
- F** $2x + 4 = 6x$
- G** $6x = 5$
- H** $4x + 2 = 6$
- J** $2x + 4 = 6$

- 3** Liz needs to know the diameter of a circular tabletop. Which method can she use to find the diameter of the tabletop that has an approximate circumference of 18 inches?

- A** Multiply 18 by π
- B** Divide 18 by π .
- C** Divide 18 by 2.
- D** Multiply 18 by 2.

- 4** Matt wants to draw a model that represents an equation. Which of the following represents the equation $3x + 4 = 5$?





TAKS Practice (continued)

- 5** Ashke bought 3 drinks for \$1.75 each, a sandwich for \$4.50, a salad for \$3.75, and a bottle of water for \$0.99. Which strategy can Ashke use to find out how much change he will receive if he pays with a \$20 bill?

A Multiply 3 by 1.75. Then add 4.50 and 3.75 to the product.
B Multiply 3 by 1.75. Then add 4.50 and $3.75 + 0.99$ to the product.
C Add $1.75 + 4.50 + 3.75 + 0.99$. Then subtract the sum from 20.
D Multiply 1.75 by 3. Add $4.50 + 3.75 + 0.99$ to the product. Then subtract the sum from 20.

- 6** Kirk had 75 pitches thrown to him during one baseball practice session. He hit 18 of the pitches. Which strategy can Kirk use to find the fraction of pitches he hit?

F Divide 18 by 75.
G Divide 75 by 18.
H Multiply 18 by 100.
J Multiply 75 by 100.

- 7** Corrine went to the movie store and bought 2 movies on sale for \$5.00 off the original price. The original price was \$18.95. Which equation can be used to find t , the total price for the 2 movies?

A $t = 18.95 - 5$
B $t = 2 \times 18.95 - 5$
C $t = 2 \times 5 - 2 \times 18.95$
D $t = 2 \times 18.95 - 2 \times 5$

- 8** At Tonya's martial arts class, there is 1 teacher for every 10 students. There are 54 students in the class. Which proportion can be used to find x , the number of teachers in the class?

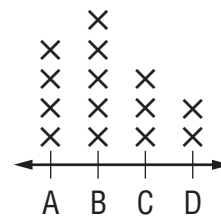
F $\frac{1}{10} = \frac{x}{54}$

G $\frac{x}{54} = \frac{10}{1}$

H $\frac{x}{1} = \frac{54}{10}$

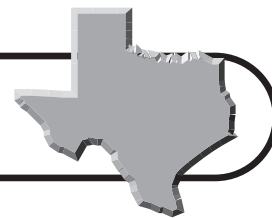
J $x = \frac{54}{1}$

- 9** The line plot below shows the grades of the students in Mrs. Newton's class.



Which statement is supported by the information in the line plot?

- A** Twelve students received a C or higher.
B The same number of students received an A as received a B.
C Five students received a B or higher.
D Two students or fewer received an A.



TAKS Practice (continued)

- 10** Aaron saved \$250 to go to Port Arkansas. He needs enough money for travel and a hotel room. He wants to find out the amount of money he will have left for food and entertainment. Look at the problem-solving steps shown below. Arrange the steps in the correct order to find the amount of money Aaron will have left for food and entertainment.

Step D: Find out the cost of travel and then the cost of a hotel.

Step E: Find the difference between \$250 and the sum of the costs of travel and a hotel room.

Step F: Find the sum of the costs of travel and a hotel room.

F EFD

G FDE

H DFE

J EDF

- 11** A gecko ate approximately 1,025 insects in 5 nights. On the 6th night, the gecko ate 25 more than on the night before. Which equation can be used to find out n , the number of insects the gecko ate on the 6th night?

A $n = (1,025 \div 5) + 25$

B $n = 5(1,025 \div 25)$

C $n = 25(1,025 \times 25)$

D $n = (1,025 \times 5) + 25$

(6.13)(A) Underlying processes and mathematical tools The student uses logical reasoning to make conjectures and verify conclusions. The student is expected to make conjectures from patterns or sets of examples and nonexamples.

- 1** Look at the number pairs below.

(2, 4), (3, 9), (4, 16), (5, 25)

Which of the following number pairs belong to this group?

A (5, 15)

B (6, 12)

C (4, 20)

D (8, 64)

- 2** Katy is playing a number game with her sister. She wrote the number pairs below on a sheet of paper.

(2, 10), (4, 20), (7, 35), (8, 40)

Which of the following number pairs could belong to this group?

F (5, 30)

G (9, 45)

H (3, 12)

J (6, 35)

- 3** Each number in the sequence below has the same relationship to the number immediately before it.

25, 40, 55, 70, 85

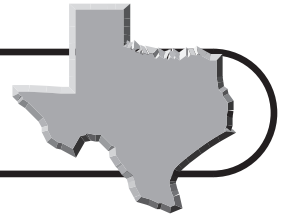
How can the next number in the sequence be found?

A Divide the previous number by 0.5.

B Subtract the previous number 1.5.

C Subtract the previous number by 15.

D Add 15 to the previous number.



TAKS Practice (continued)

Use this information to answer questions 4 and 5.

Elizabeth drew four shapes on a marker board.



4 Which statement best describes the shapes that Elizabeth drew?

- F They all contain only right angles.
- G They all have an even number of sides.
- H They all have an odd number of angles.
- J Not here

5 Which of these shapes does NOT belong in the set?



6 The side lengths and areas of some regular polygons are shown in the table below.

Regular Polygons

Side Length (cm)	Area (cm ²)
2	4
4	16
6	36
8	64

Which geometric figure is best represented by the data in the table?

- F Triangle
- G Square
- H Pentagon
- J Hexagon

(6.13)(B) Underlying processes and mathematical tools

The student uses logical reasoning to make conjectures and verify conclusions. The student is expected to validate his/her conclusions using mathematical properties and relationships.

1 Carlos needs to find 2 integers that have a difference of 4 and a sum of 42. He says that the integers are 20 and 22. Why is Carlos' answer incorrect?

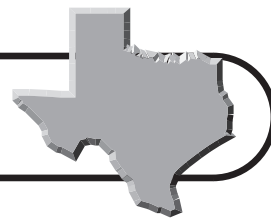
- A The sum of 20 and 22 is not 42.
- B The difference between 20 and 22 is not 4.
- C The difference between 20 and 22 is 4.
- D The sum of 20 and 22 is 42.

2 Linda wants to find 2 integers that have a sum of 67 and a difference of 5. She says that the integers are 32 and 35. Why is Linda's answer incorrect?

- F The difference between 35 and 32 is not 5.
- G The difference between 35 and 32 is 5.
- H The sum of 32 and 35 is 67.
- J The sum of 32 and 35 is not 67.

3 LeBron was asked to find 2 integers that have a difference of 14 and a sum of 56. He said the integers were 35 and 21. Why was LeBron's answer correct?

- A The sum of 35 and 21 is 55.
- B The sum of 21 and 35 is 56.
- C The difference between 35 and 21 is not 14.
- D The difference between 14 and 56 is 30.



Practice Test

Read each question and choose the correct answer for each question.

- 1** Jasmine went to the mall to buy a pair of sandals. She found a pair of sandals that were 40% off the regular price. Which fraction is equivalent to 40%?

A $\frac{1}{40}$
B $\frac{4}{25}$
C $\frac{100}{40}$
D $\frac{2}{5}$

- 2** The table below shows the measurements for three rectangles. Each rectangle has a width of 3 inches. Which formula could be used to find P , the perimeter of a rectangle that is 9 inches long and 3 inches wide?

F $P = 3 + 2 \times 9$
G $P = 3 + 9 \times 2$
H $P = 2 + 9 \times 2$
J $P = 2 \times 9 + 2 \times 3$

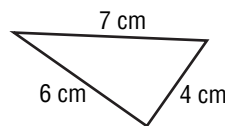
- 3** Eduardo and his brother ran in the Capitol 10-K race last April. Eduardo ran the race in 45 minutes. His brother finished in 57 minutes. Which ratio represents the number of minutes Eduardo ran to the number of minutes his brother ran?

A $\frac{15}{19}$
B $\frac{15}{17}$
C $\frac{19}{15}$
D $\frac{75}{45}$

- 4** Which of the following could represent the angle measures of a triangle?

F $120^\circ, 30^\circ, 20^\circ$
G $110^\circ, 20^\circ, 10^\circ$
H $90^\circ, 60^\circ, 30^\circ$
J $70^\circ, 40^\circ, 20^\circ$

- 5** Which is the best estimate of the perimeter of the triangle?

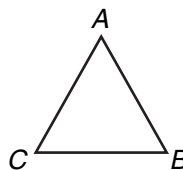


A 17 cm
B 21 cm
C 24 cm
D 28 cm

- 6** Julio's dog got loose and ran for almost 3 miles. How many yards did his dog run?

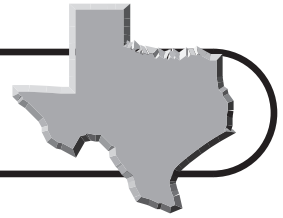
F 3,280 yd
G 3,320 yd
H 5,020 yd
J 5,280 yd

- 7** The three sides of the triangle below are of equal length. What is the measure of $\angle B$?



A 30°
B 40°
C 60°
D 65°

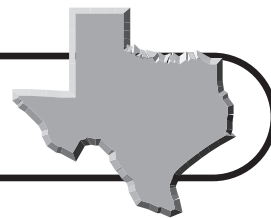




Practice Test (continued)

- 8** The ratio of boys to girls at summer camp is about 5 to 3. If there were 25 boys at camp, about how many girls were at camp?
- F** 5
G 10
H 15
J 20
- 9** Marcus needs to find two integers that have a difference of 4 and a sum of 72. He says that the integers are 34 and 36. Why is Marcus's answer incorrect?
- A** The sum of 34 and 36 is not 72.
B The difference between 34 and 36 is not 4.
C The difference between 34 and 36 is 4.
D The sum of 34 and 36 is 72.
- 10** Logan started a dog-bathing business. He charges \$20 per hour for labor. A dog bath should take about 60 minutes. The supplies cost between \$3 and \$5. Which of these is the approximate amount a dog owner might expect to pay?
- F** \$15
G \$25
H \$37
J \$95
- 11** Kendra puts 4 books in her backpack. The lightest book weighs about 1.5 pounds, and the heaviest book weighs about 2.5 pounds. What is an estimated total weight of the books in her backpack?
- A** 6 lb
B 8 lb
C 10 lb
D 12 lb
- 12** LeRoy is painting his bedroom. Each of the four walls is 10 feet long and 8 feet high. A gallon of paint will cover about 400 square feet. Which equation can be used to find p , the number of gallons of paint needed to cover Nathan's bedroom?
- F** $p = \frac{4(8 \times 10)}{4}$
G $p = \frac{400(8 \times 10)}{4}$
H $p = \frac{4(8 \times 10)}{400}$
J $p = 400 - (8 \times 10 \times 4)$
- 13** Stefan bought 3 boxes of ink cartridges for his printer. There are 12 cartridges in each box. The printer used all but 8 of the cartridges. Which equation can be used to find c , the number of cartridges that Stephan used?
- A** $c = (3 \times 12) - 8$
B $c = 3 \times 12 - 8 \times 12$
C $c = 3 \times 12$
D $c = 3 \times (12 - 4)$
- 14** Tito rode his bicycle 100 miles from Austin to Houston. He traveled an average speed of 12 miles an hour. He stopped 3 times to rest. When he arrived in Houston it was 7 P.M. Which of the following cannot be determined from the information given?
- F** The time that Tito left Austin
G The number of miles to Houston
H The number of miles per hour that Tito averaged
J The time that Tito arrived in Houston



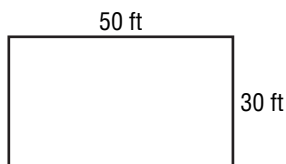


Practice Test (continued)

- 15** Which expression can be used to find the diameter of a circle with an approximate circumference of 64 inches?

A $64 \div 3.14$
B 64×3.14
C 64×4
D $64 \div 4$

- 16** Emilio wants to cover the floor of his attic using the measurements shown below. He needs to know the area of the floor so that he will know how much flooring to buy. What is the area of the attic?



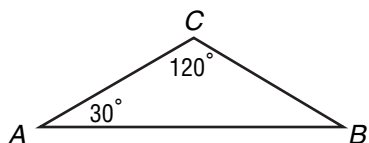
F 1,200 sq ft **H** 1,500 sq ft
G 1,300 sq ft **J** 5,100 sq ft

- 17** Find the mode in the list of numbers below.

3, 6, 8, 19, 8, 13, 22, 8, 25, 28

A 8 **C** 22
B 19 **D** 28

- 18** In the figure below, what type of angle is $\angle A$?



F Acute **H** Right
G Obtuse **J** Straight

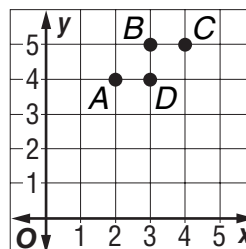
- 19** Quinton went to a car show with his father and his uncle. They bought 3 tickets for \$12.50 each, 3 T-shirts for \$15.00 each, and 3 drinks for \$2.00 each. If the total amount of money spent was split evenly among all 3, which equation could be used to find c , the amount of money each person paid?

A $c = (3 + 15.00 + 2.00)$
B $c = (3 \times 12.50 + 3 \times 15.00 + 3 \times 2.00) \div 3$
C $c = (3 \times 12.50) \div 3 + 15.00 + 2.00$
D $c = (3 \times 12.50) + 2.00 + 15.00) \div 3$

- 20** Keiko is shelving books in the library. She finds that she can fill 5 shelves with 30 books on each shelf. What is an estimate of the total number of books that Keiko can shelve?

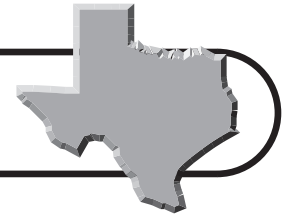
F 100
G 125
H 150
J 510

- 21** Which point represents the location of the ordered pair (2, 4)?



A Point A
B Point B
C Point C
D Point D





Practice Test (continued)

- 22** Mrs. Price needs 4 feet of fabric to make one baby blanket. The table below shows the number of yards of fabric Mrs. Price purchased from four different stores.

Mrs. Price's Fabric Purchases

Store	Number of Yards
Fran's Fabrics	7 yards
Cloth and Things	5 yards
Carla's	8 yards
City Fabrics	4 yards

About how many blankets can Mrs. Price make?

Record your answer and fill in the bubbles on the grid below. Be sure to use the correct place value.

0	0	0	0		0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9

- 23** Look at the group of number pairs below.
 (3, 9), (4, 16), (5, 25), (6, 36)

Which of the following number pairs belong to this group?

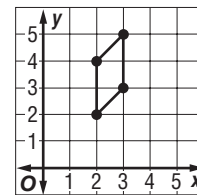
- A** (3, 6)
B (4, 12)
C (2, 4)
D (7, 48)

- 24** Brittany and 2 friends went to an amusement park. She bought 3 tickets to ride the roller coaster for a total of \$9.50. She also bought 3 hamburger meals for lunch. She spent a total of \$23.00. What was the price of each hamburger meal?

- F** \$6.75 **H** \$5.40
G \$6.50 **J** \$4.50

- 25** Cory listed the coordinates of three of the vertices of the quadrilateral below.

(2,2), (2,4) (3,3)



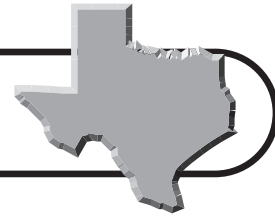
Which of the following is the coordinates of the fourth vertex?

- A** (5,3) **C** (3,4)
B (3,5) **D** (1,1)

- 26** Angela put 4 blue jellybeans, 3 green jellybeans, 2 red jellybeans, and 3 black jellybeans into a jar. If Angela randomly takes out one jellybean from the jar without looking, what is the probability that the jelly bean will be blue?

- F** 0.20
G 0.33
H 0.40
J 0.50





Practice Test (continued)

- 27** Lynn's father kept a record of the price he paid for gasoline over a 4-week period. The table below shows the amount he paid per gallon of gasoline each week.

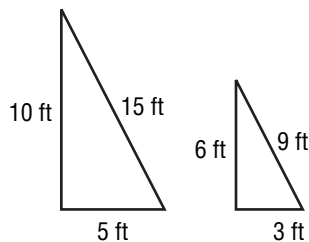
Gasoline Prices

Week	1	2	3	4
Price Per Gallon	\$2.15	\$2.24	\$2.65	\$2.88

What was the average price per gallon that Lynn's father paid over the 4 weeks?

- A** \$24.80
- B** \$2.84
- C** \$2.50
- D** \$2.48

- 28** The triangles shown below are similar.



What is the ratio of a side length of the larger triangle to the corresponding side length of the smaller triangle?

- F** 3 to 5
- G** 4 to 3
- H** 5 to 3
- J** 5 to 4

- 29** What is the greatest common factor of 18 and 45?
- A** 3
 - B** 6
 - C** 8
 - D** 9

- 30** Jeremy has a piece of lumber that measures 12 feet in length. He cuts off a $1\frac{1}{2}$ -foot-long piece and a $2\frac{1}{4}$ -foot-long piece. What is the length of the piece of lumber now?

- F** $3\frac{1}{4}$ ft
- G** $3\frac{3}{4}$ ft
- H** $6\frac{3}{4}$ ft
- J** $8\frac{1}{4}$ ft

- 31** Each number in the sequence below has the same relationship to the number immediately before it.

56, 70, 84, 98, 112, 126 . . .

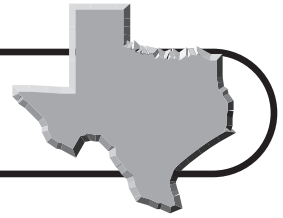
How can the next number in the sequence be found?

- A** Divide the previous number by 14.
- B** Multiply the previous number by 14.
- C** Add 14 to the previous number.
- D** Subtract 14 from the previous number.

- 32** Sasha is measuring the lengths of four pieces of yarn. Which list shows the yarn lengths in order from longest to shortest?

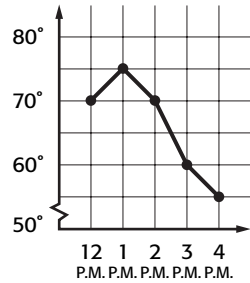
- | | | | |
|---------------|------|------|------|
| F 4.75 | 4.5 | 4.3 | 4.25 |
| G 4.75 | 4.5 | 4.25 | 4.3 |
| H 4.25 | 4.3 | 4.5 | 4.75 |
| J 4.75 | 4.25 | 4.5 | 4.3 |





Practice Test (continued)

- 33** The line graph below shows the change in temperature from 12 P.M. to 4 P.M.



Between which two hours did the temperature decrease by the greatest amount?

- A** Between 12 P.M. and 1 P.M.
- B** Between 1 P.M. and 2 P.M.
- C** Between 2 P.M. and 3 P.M.
- D** Between 3 P.M. and 4 P.M.

- 34** Sayad left his house to go to a football game at the 10:00 A.M. He returned to his house at 2:45 P.M. How long was Sayad away from home?

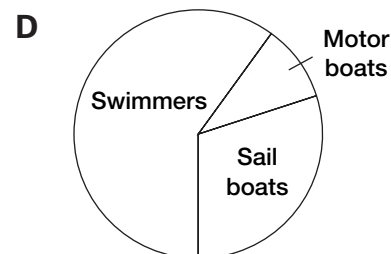
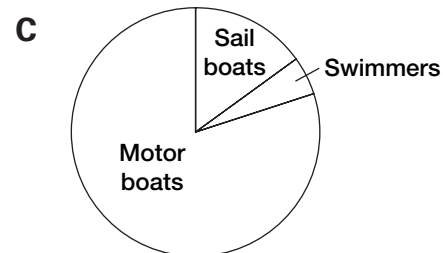
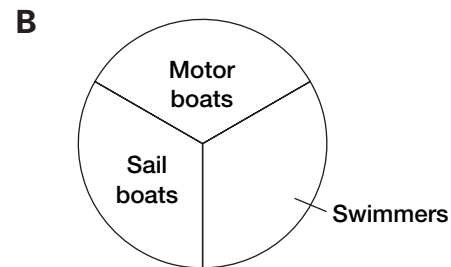
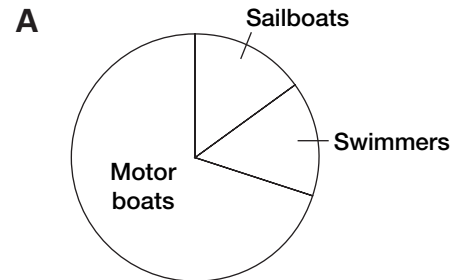
- F** 4 h 45 min
- G** 4 h 30 min
- H** 4 h 15 min
- J** 4 h

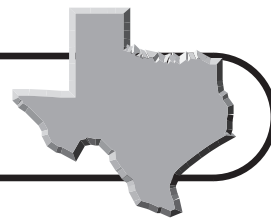
- 35** Michaela and her friends went to Lake Austin. She counted the number of swimmers, motor boats, and sailboats on the lake.

Lake Visitors

Visitors	Number
Swimmers	48
Motor Boats	8
Sailboats	24

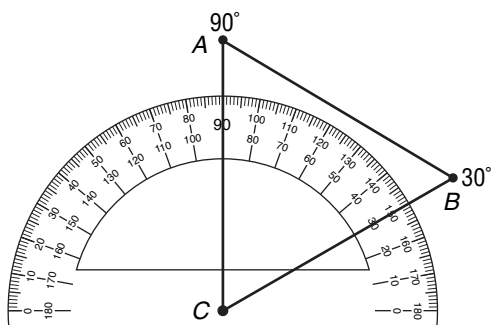
Which circle graph matches the information in the table?





Practice Test (continued)

- 36** What is the measure of $\angle C$ to the nearest degree?



- F** 60° **H** 30°
G 45° **J** 20°

- 37** What is the prime factorization of 70?

- A** $2 \times 5 \times 7$
B $2^2 \times 4 \times 5$
C $2 \times 3^2 \times 5$
D $2^2 \times 5^2 \times 7^2$

- 38** Marisol and her mother went to a bakery. They bought 3 cheesecakes that weighed about 1.85 pounds each. About how much did the 3 cheesecakes weigh in all?

- F** 3.5 lb **H** 5.5 lb
G 4.5 lb **J** 6.6 lb

- 39** The thermometer outside of Jared's house read 71°F at 4 P.M. At 9 A.M. the next morning, the thermometer read 53°F . Which best describes the change in temperature from 4 P.M. to 9 A.M.?

- A** The temperature decreased by 22°F .
B The temperature increased by 12°F .
C The temperature increased by 18°F .
D The temperature decreased by 18°F .

- 40** Andre's younger sister wants to hang 3 pictures on her bedroom wall. She will hang them next to each other. Which shows all of the possible ways of arranging the pictures on the wall?

F Bird — Tree — Dog

Tree — Dog — Bird

Dog — Bird — Tree

G Bird $\begin{array}{l} \diagup \\ \diagdown \end{array}$ Tree — Dog
Dog — Tree

Tree $\begin{array}{l} \diagup \\ \diagdown \end{array}$ Bird — Dog
Dog — Bird

Dog $\begin{array}{l} \diagup \\ \diagdown \end{array}$ Bird — Tree
Tree — Bird

H Bird $\begin{array}{l} \diagup \\ \diagdown \end{array}$ Tree — Dog
Dog — Tree

Tree — Dog — Bird

Dog — Bird — Tree

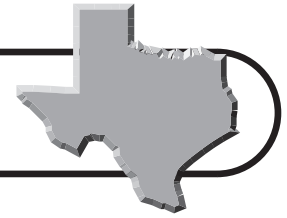
J Bird $\begin{array}{l} \diagup \\ \diagdown \end{array}$ Tree — Dog
Dog — Tree

Tree $\begin{array}{l} \diagup \\ \diagdown \end{array}$ Dog — Bird
Bird — Dog

Dog $\begin{array}{l} \diagup \\ \diagdown \end{array}$ Tree — Bird
Bird — Tree

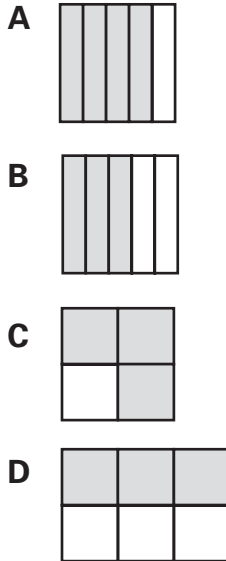
Tree — Bird — Dog





Practice Test (continued)

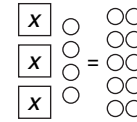
- 41** Sierra is knitting a scarf. She knitted $\frac{1}{2}$ of the scarf on Friday and $\frac{1}{4}$ of the scarf on Saturday. Which model shows how much of the scarf Sierra knitted on Friday and Saturday?



- 42** Each year runners compete in Austin's Capitol 10,000-K foot race. One runner runs an average of 3 miles per hour, another runner averages 2 miles per hour, and a third runner runs an average of 4 miles per hour. What is the average pace of these three runners?

F 3.5 mph
G 3.0 mph
H 2.75 mph
J 2.5 mph

- 43** Which equation does the drawing below represent?



A $3x = 10$
B $3x + 4 = 7x$
C $3x + 4 = 10$
D $3x - 4 = 10$

- 44** A children's hospital is having an artist paint a picture of a sun on the wall of the hospital's main lobby. The sun has a radius of 5 feet. Which expression shows the approximate circumference of the painted sun?

F 15π
G 12π
H 10π
J 5π

- 45** Look at the number pattern.

5, 12, 19, 26 . . .

Which number sentence can be used to find g , the fifth number in the pattern?

A $g = 26 + 7$
B $g = 26 \times 7$
C $g = 7 \times 7$
D $g = 7 + 7$

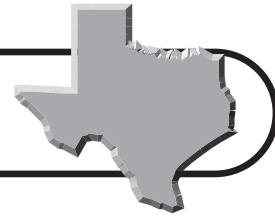
- 46** Every September, San Marcos hosts a chili cook-off. About 85% of the contestants are from San Marcos. What decimal represents 85%?

F 85.0
G 0.85
H 0.58
J 0.085



Countdown to TAKS

25 Weeks to TAKS



Monday

- 1** The table shows the times of the first five pick-ups at a bus stop. If the pattern in the table continues, when will the next bus arrive? **(6.13)(A)**

- A** 7:35
B 7:40
C 7:45
D 7:50

Bus Schedule
6:40
6:55
7:10
7:25

Tuesday

- 2** Which of the following expressions shows the prime factorization of 360? **(6.1)(D)**

- F** $2^2 \times 3^2 \times 7$
G $2^3 \times 3^3 \times 5$
H $2^3 \times 3^2 \times 5$
J $2^3 \times 3 \times 5^2$

Wednesday

- 3** The simplified result of the expression is equal to the number of counties in Texas. How many counties are there in the state? **(6.2)(D)**

$$1,524 \times 3 \div 9 \div 4 \times 2$$

- A** 61,722
B 4,064
C 2,286
D 254

Thursday

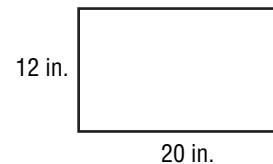
- 4** Michelle can jump rope 2 times per second. How many times could she jump rope in 1 minute (60 seconds)? **(6.2)(C)**

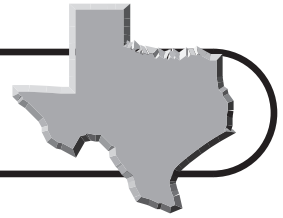
- F** 60 times
G 90 times
H 100 times
J 120 times

Friday

- 5** What is the area of the rectangle below? **(6.8)(B)**

- A** 240 in^2
B 160 in^2
C 96 in^2
D 64 in^2





Countdown to TAKS

24 Weeks to TAKS

Monday

- 1** Raul's father needs to buy a bag of lawn fertilizer to treat his side yard. Which of the following is the best estimate for the number of square feet that he needs to treat? **(6.8)(B)**

A 2,000 ft²

B 2,100 ft²

C 2,300 ft²

D 2,400 ft²

41 ft



58 ft

Tuesday

- 2** Which of the following integers is NOT a factor of 660? **(6.1)(D)**

F 2

G 3

H 5

J 7

Wednesday

- 3** Suppose you divide 80 by 4 and then multiply the quotient by 2. What is 5 less than the number you got? **(6.2)(D)**

A 35

B 25

C 15

D 5

Thursday

- 4** If 7 is subtracted from twice the number of U.S. Representatives from Texas, the result is 57. Which of the following equations can be used to solve for x , the number of representatives from Texas? **(6.11)(C)**

F $2(x - 7) = 57$

G $2x - 7 = 57$

H $2(x + 7) = 57$

J $2x + 7 = 57$

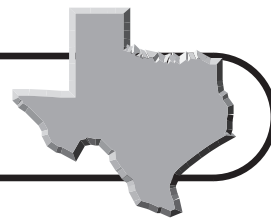
Friday

- 5** Using your equation from Exercise 4, how many representatives from Texas are there in the U.S. Congress? **(6.11)(C)**

0	0	0	0	.	0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9

Countdown to TAKS

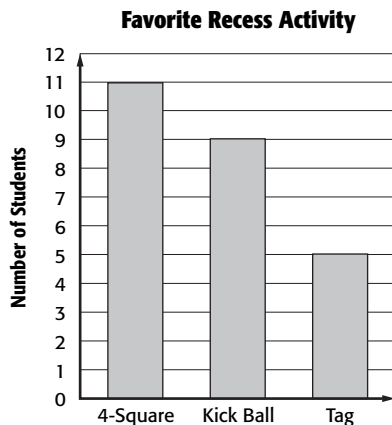
23 Weeks to TAKS



Monday

- 1 The results of a survey are shown in the bar graph. How many more students voted for kick ball than for tag as their favorite recess activity? **(6.10)(D)**

- A** 4 students
B 5 students
C 9 students
D 14 students



Tuesday

- 2 The table shows the approximate population of Texas during certain years. Which type of graph would be best for showing how the population changed over time? **(6.10)(A)**

Year	Population
1920	4.7 million
1940	6.4 million
1960	9.6 million
1980	14.2 million
2000	20.8 million

- F** bar graph
G circle graph
H line graph
J line plot

Wednesday

- 3 How many students earned a grade of at least 80 on the math test? **(6.10)(D)**

Test Scores

Stem	Leaf
5	7
6	2 8
7	5 5 7 8
8	0 1 6 7 7 8 9
9	2 4 5 6

$$715 = 75$$

- A** 4 students
B 6 students
C 9 students
D 11 students

Thursday

- 4 Suppose the high temperatures last week were 65°F, 72°F, 71°F, 70°F, 68°F, 69°F, and 68°F. What was the median temperature for the week? **(6.10)(B)**

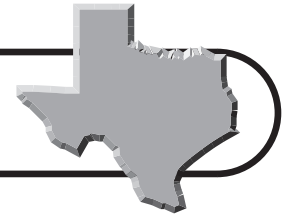
- F** 68°F **H** 70°F
G 69°F **J** 71°F

Friday

- 5 The ages of the players on Heather's soccer team are shown below. What is the range in the ages? **(6.10)(B)**

10, 10, 11, 12, 9, 11, 10, 10, 11, 12, 11, 10, 9

- A** 2 yr **C** 4 yr
B 3 yr **D** 5 yr



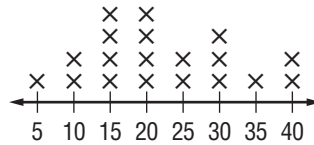
Countdown to TAKS

22 Weeks to TAKS

Monday

- 1** The line plot shows the number of hours spent volunteering by 6th graders last summer. What is the median number of volunteer hours? **(6.10)(B)**

- A** 15 hr
B 20 hr
C 25 hr
D 30 hr



Tuesday

- 2** The table shows the elevations of some of the highest points in Texas. What is the median height of these peaks? **(6.10)(B)**

Highest Points in Texas

Peak	Elevation (ft)
Bush Mountain	8,631
El Capitan	8,085
Guadalupe Peak	8,749
Hunter Peak	8,368
Shumard Peak	8,615

- F** 8,368 ft
G 8,615 ft
H 8,631 ft
J 8,749 ft

Wednesday

- 3** Refer to the table of elevations in Exercise 2. What is the range in the heights of the peaks shown? **(6.10)(B)**

- A** 523 ft
B 575 ft
C 621 ft
D 664 ft

Thursday

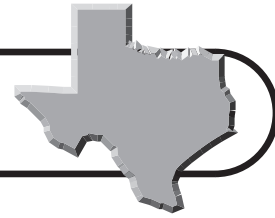
- 4** Which of the following types of data displays is best for showing how much rain has fallen over the past 6 hours? **(6.10)(A)**

- F** bar graph
G circle graph
H line graph
J line plot

Friday

- 5** Which of the following types of data displays is best for showing how spread out a data set is? **(6.10)(A)**

- A** bar graph
B circle graph
C line graph
D line plot



Countdown to TAKS

21 Weeks to TAKS

Monday

- 1** The lengths of the borders of the northern panhandle of Texas are shown in the table. What is the total combined length of the borders along the Texas panhandle? **(6.2)(B)**

Texas Boundary Lines

Boundary	Length (mi)
East Panhandle	133.6
North Panhandle	167.0
West Panhandle	310.2

- A** 588.6 mi
B 600.2 mi
C 610.8 mi
D 620.4 mi

Tuesday

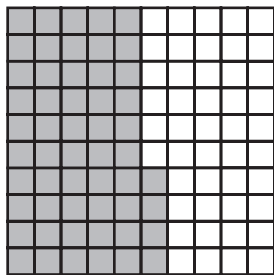
- 2** How can you write *thirty-eight and twenty-one thousandths* as a decimal? **(6.1)(B)**
- F** 38.21
G 38.021
H 38.0021
J 38.201

Wednesday

- 3** Which of the following shows the decimals in order from least to greatest? **(6.1)(A)**
- A** 0.001, 0.25, 0.04, 0.15, 0.2
B 0.001, 0.04, 0.15, 0.25, 0.2
C 0.001, 0.15, 0.2, 0.25, 0.04
D 0.001, 0.04, 0.15, 0.2, 0.25

Thursday

- 4** What decimal is shown in the model below? **(6.1)(B)**
- F** 0.54
G 0.56
H 0.6
J 0.64



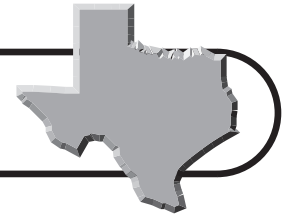
Friday

- 5** The times of four runners in a race are shown in the table. Which runner completed the race in the shortest amount of time? **(6.1)(A)**
- A** Amy
B Kerri
C Lin
D Tina

Runner	Time (sec)
Tina	11.05
Amy	11.11
Lin	11.02
Kerri	11.22

Countdown to TAKS

20 Weeks to TAKS



Monday

- 1** Refer to the table at the right. Which of the following is the best estimate of the amount of money raised during the 5-day fundraiser? **(6.2)(D)**

- A** \$15,000
B \$18,000
C \$20,000
D \$22,000

Day	Amount Raised (× \$1,000)
Mon.	2.9
Tues.	5.2
Wed.	4.9
Thurs.	3.1
Fri.	4.2

Tuesday

- 2** The average temperature in Houston, TX, during April is 68.3°F. In May, the average temperature is 74.5°F. On average, how much warmer is it during May than during April? **(6.2)(B)**

- F** 5.9°F
G 6.2°F
H 6.5°F
J 6.8°F

Wednesday

- 3** How can you write *one hundred fifty-nine and one hundred eight thousandths* as a decimal? **(6.1)(B)**

- A** 159.0108
B 159.18
C 159.018
D 159.108

Thursday

- 4** Which of the following expressions shows the prime factorization of 140? **(6.1)(D)**

- F** $2^2 \times 5 \times 7$
G $2 \times 5^2 \times 7$
H $2^2 \times 3^2 \times 5$
J $2^3 \times 3 \times 7$

Friday

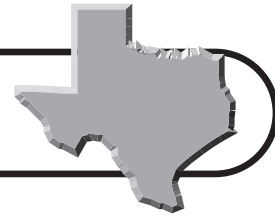
- 5** Which symbol will make a true number sentence when it is placed in the blank? **(6.1)(A)**

5.04 _____ 5.40

- A** <
B >
C =
D ÷

Countdown to TAKS

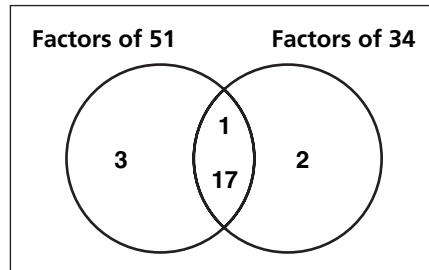
19 Weeks to TAKS



Monday

- 1** The Venn diagram shows the factors of 51 and 34. What is the greatest common factor of 51 and 34? **(6.1)(E)**

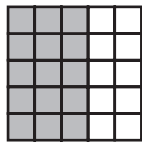
- A** 1
B 2
C 3
D 17



Tuesday

- 2** What fraction is represented by the model below? **(6.1)(B)**

- F** $\frac{1}{5}$
G $\frac{1}{4}$
H $\frac{1}{2}$
J $\frac{3}{5}$



Wednesday

- 3** The coldest temperature in the history of Texas occurred in Tulia in 1899 when the temperature reached 23 degrees below zero. Which integer represents this record temperature? **(6.1)(C)**

- A** -23
B -13
C 0
D 23

Thursday

- 4** What is the least common multiple of 12 and 18? **(6.1)(E)**

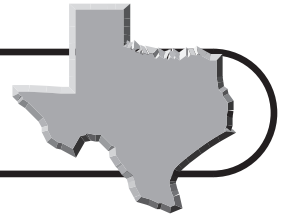
- F** 24
G 28
H 36
J 72

Friday

- 5** Which symbol will make a true number sentence when it is placed in the blank? **(6.1)(A)**

$$\frac{8}{9} \text{ — } \frac{7}{8}$$

- A** <
B >
C =
D ÷



Countdown to TAKS

18 Weeks to TAKS

Monday

1 Use the road sign below. How far is it to reach the hotels? **(6.1)(B)**

A $\frac{3}{5}$ mi

B $1\frac{1}{10}$ mi

C $1\frac{1}{5}$ mi

D $1\frac{3}{10}$ mi

Beach 0.6 mi

Hotels 1.1 mi

Food 1.3 mi

Tuesday

2 The decimal 0.025 represents the portion of Texas that is covered by water. What fraction of the state is covered by water? **(6.1)(B)**

F $\frac{1}{25}$

G $\frac{1}{30}$

H $\frac{1}{40}$

J $\frac{1}{50}$

Wednesday

3 Suppose Jerome dives 6 feet below the surface of the water in a swimming pool. Which integer represents this situation? **(6.1)(C)**

A 6

B 0

C -3

D -6

Thursday

4 How can you write $3\frac{1}{8}$ as a decimal? **(6.1)(B)**

F 3.1

G 3.125

H 3.175

J 3.25

Friday

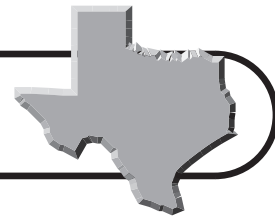
5 What is the greatest common factor of 20 and 50? **(6.1)(E)**

A 2

B 5

C 10

D 15



Countdown to TAKS

17 Weeks to TAKS

Monday

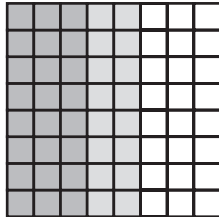
1 What number sentence is shown by the model below? **(6.2)(A)**

A $\frac{3}{8} + \frac{1}{8} = \frac{1}{2}$

B $\frac{3}{8} + \frac{1}{4} = \frac{5}{8}$

C $\frac{1}{3} + \frac{1}{4} = \frac{7}{12}$

D $\frac{3}{10} + \frac{1}{5} = \frac{1}{2}$



Tuesday

2 A piece of pipe $2\frac{1}{4}$ inches long is cut from a piece of pipe that is $5\frac{3}{4}$ inches long. How much of the original pipe is left? **(6.2)(B)**

F $2\frac{7}{8}$ in.

G $3\frac{1}{8}$ in.

H $3\frac{1}{4}$ in.

J $3\frac{1}{2}$ in.

Wednesday

3 How many cups of nuts are called for altogether in the recipe? **(6.2)(B)**

Peanuts	$\frac{3}{4}$ cup
Cashews	$\frac{1}{2}$ cup
Walnuts	$\frac{3}{8}$ cup

A $1\frac{3}{8}$ c

B $1\frac{1}{2}$ c

C $1\frac{5}{8}$ c

D $1\frac{3}{4}$ c

Thursday

4 Which two numbers have a greatest common factor of 12? **(6.1)(E)**

F 10 and 30

G 48 and 60

H 24 and 48

J 36 and 64

Friday

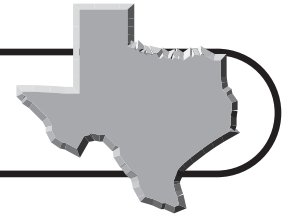
5 The highest point in Texas is Guadalupe Peak with an elevation of *two thousand six hundred sixty-seven* meters above sea level. Which integer represents this elevation? **(6.1)(C)**

A 2,067

B 2,607

C 2,660

D 2,667



Countdown to TAKS

16 Weeks to TAKS

Monday

- 1** The table shows the portion of Texas' livestock economy that is made up of cattle, chickens, and eggs. How much more of the economy is made up of chickens than eggs? **(6.2)(B)**

A $\frac{1}{25}$

B $\frac{1}{20}$

C $\frac{1}{14}$

D $\frac{1}{10}$

Livestock Product	Portion of Livestock Economy
Cattle	$\frac{3}{4}$
Chickens	$\frac{1}{10}$
Eggs	$\frac{1}{35}$

Tuesday

- 2** Which of the following is the best estimate for $9\frac{1}{12} - 4\frac{8}{9}$? **(6.2)(D)**

F 4

G 5

H 6

J 7

Wednesday

- 3** What is $8\frac{2}{3}$ rounded to the nearest half? **(6.2)(D)**

A 8

B $8\frac{1}{2}$

C 9

D $9\frac{1}{2}$

Thursday

- 4** Suppose hot dogs are sold in packages of 8 and hot dog buns are sold in packages of 10. What is the smallest number of hot dogs and buns you could buy and not have any left over? (*Hint: What is the least common multiple of 8 and 10?*) **(6.1)(E)**

F 20 hot dogs and buns

G 40 hot dogs and buns

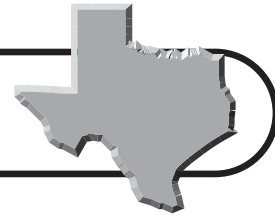
H 60 hot dogs and buns

J 80 hot dogs and buns

Friday

- 5** What is the greatest common factor of 9, 18, and 45? **(6.1)(E)**

				.		
0	0	0	0		0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9

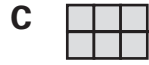


Countdown to TAKS

15 Weeks to TAKS

Monday

- 1 Which of the following shows the next figure of the sequence? **(6.11)(C)**



Tuesday

- 2 The bin in the school gym contains 12 basketballs and 8 soccer balls. What is the ratio of basketballs to soccer balls? **(6.3)(B)**

F 3 : 5

G 2 : 3

H 3 : 2

J 5 : 3

Wednesday

- 3 Texas has 2 senators and 32 representatives in the U.S. Congress. What is the ratio of senators to representatives? **(6.3)(B)**

A 1 to 16

B 1 to 18

C 16 to 1

D 18 to 1

Thursday

- 4 The ratio of teachers to students at Elk Run Middle School is 4 to 108. If there are 540 students at the school, how many teachers are there? **(6.2)(C)**

F 15 teachers

G 17 teachers

H 19 teachers

J 20 teachers

Friday

- 5 The table shows how many sno-cones were sold in one day at an ice cream shop. If 90 customers purchase sno-cones tomorrow, how many strawberry sno-cones would you expect to be sold? **(6.3)(C)**

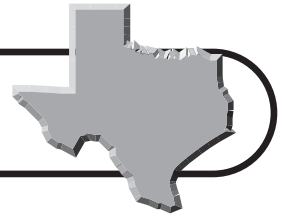
Flavor	Number
Grape	15
Strawberry	10
Orange	10
Cherry	25

A 10

B 12

C 15

D 18



Countdown to TAKS

14 Weeks to TAKS

Monday

- 1** Meredith works as a quality control specialist at an electronics assembly plant. The table shows how many defective parts she found in a random sample of 120 parts. At this rate, how many defective parts should she expect in a production run of 1,800 parts? **(6.3)(C)**

Quality Control Report

Total Parts	120
Defects	3
No Defects	117

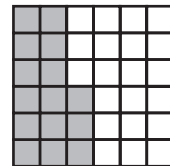
- A** 35 defects
- B** 40 defects
- C** 45 defects
- D** 50 defects

Tuesday

- 2** Craig can drive 140 miles on 4 gallons of gasoline. At this rate, how far could he drive on a full tank of 14 gallons? **(6.2)(C)**
- F** 450 mi
 - G** 490 mi
 - H** 540 mi
 - J** 620 mi

Wednesday

- 3** What is the ratio of shaded squares to non-shaded squares in the model? **(6.3)(B)**
- A** 7 to 5
 - B** 12 to 5
 - C** 5 to 12
 - D** 5 to 7

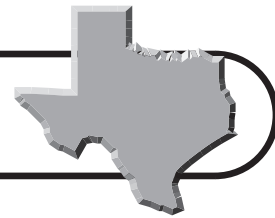


Thursday

- 4** The ratio of pepperoni pizza slices to mushroom pizza slices sold at the cafeteria is 7 to 3. Suppose the cafeteria staff expects to sell 200 slices of pizza next Friday. How many of them should be pepperoni? **(6.3)(C)**
- F** 140 pepperoni slices
 - G** 146 pepperoni slices
 - H** 150 pepperoni slices
 - J** 155 pepperoni slices

Friday

- 5** The distance from Fort Worth, TX, to Odessa, TX, along Interstate 20 is 325 miles. How long would it take you to drive this distance at an average rate of 65 miles per hour? **(6.2)(C)**
- A** 4.5 h
 - B** 5 h
 - C** 5.5 h
 - D** 6 h



Countdown to TAKS

13 Weeks to TAKS

Monday

- 1** Antwawn is making a circle graph of his monthly budget. What fraction of the circle would he shade for the Rent section? **(6.10)(C)**

Antwawn's Budget

Rent	40%
Food	15%
Car	10%
Utilities	20%
Savings	15%

A $\frac{1}{10}$
B $\frac{3}{20}$

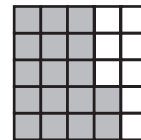
C $\frac{1}{5}$
D $\frac{2}{5}$

Tuesday

- 2** In Exercise 1, what decimal part of Antwawn's monthly budget does he spend on his food? **(6.3)(B)**
- F** 0.15
G 0.40
H 1.5
J 15.0

Wednesday

- 3** What percent of the squares are shaded in the model below? **(6.3)(B)**
- A** 18%
B 36%
C 72%
D 80%



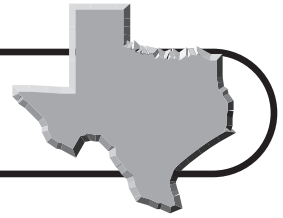
Thursday

- 4** It takes 20 nickels to make one dollar so a nickel is $\frac{1}{20}$ of a dollar. What percent of a dollar is a nickel? **(6.3)(B)**
- F** 1%
G 2.5%
H 5%
J 10%

Friday

- 5** East Texas is made up of 49 counties and covers about 40,000 square miles. This is 0.2 of all the counties in the state. What percent of all the counties lie in East Texas? **(6.3)(B)**

0	0	0	0	.	0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9



Countdown to TAKS

12 Weeks to TAKS

Monday

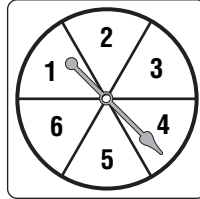
1 What is the probability of spinning a number greater than 4 on the spinner? **(6.9)(B)**

A $\frac{1}{8}$

B $\frac{1}{6}$

C $\frac{1}{4}$

D $\frac{1}{3}$



Tuesday

2 How can you write *sixty-five thousandths* as a percent? **(6.1)(B)**

F 0.065%

G 0.65%

H 6.5%

J 65%

Wednesday

3 A deli offers wheat and white bread with turkey, ham, or salami. How many different outcomes are there if a sandwich is chosen at random? **(6.9)(A)**

A 3

B 5

C 6

D 8

Thursday

4 The population of Houston, TX, is about 2 million people. This includes about 1.5 million people who are 18 years or older. Suppose a Houston resident is chosen at random. What is the probability that he or she is younger than 18?

(6.9)(B)

F 25%

G 50%

H 60%

J 75%

Friday

5 The sixth graders are raising money for charity this month. They have raised \$200 from a car wash, \$300 from a walk-a-thon, \$150 from a bake sale, and \$100 from a raffle. They want to make a circle graph of the amounts raised from each activity. What fraction (in simplest form) of the circle should they use for the raffle section? **(6.3)(B)**

A $\frac{2}{15}$

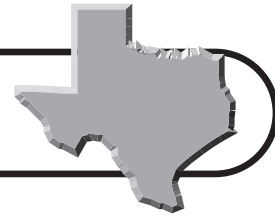
B $\frac{1}{5}$

C $\frac{4}{15}$

D $\frac{2}{5}$

Countdown to TAKS

11 Weeks to TAKS



Monday

- 1** Suppose Juanita orders 1 dessert and 1 drink from the menu. How many possible combinations does she have to choose from? **(6.9)(A)**

Dessert	Drink
Cake	Milk
Pie	Juice
Cookies	Coffee
	Tea

- A** 7
B 10
C 12
D 16

Tuesday

- 2** Texas has about 591 kilometers of coastline. How many meters is this? **(6.8)(D)**

- F** 5,910 m
G 59,100 m
H 591,000 m
J 5,910,000 m

Wednesday

- 3** Suppose Aaron started practicing the guitar at 3:52 P.M. and practiced for a total of 45 minutes. What time did he stop? **(6.8)(B)**

- A** 4:32 P.M.
B 4:37 P.M.
C 4:42 P.M.
D 4:47 P.M.

Thursday

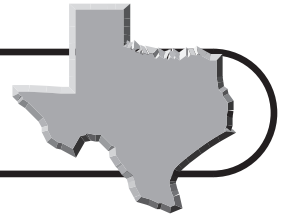
- 4** A landscaping company ordered 6.5 tons of mulch to be delivered. How many pounds of mulch is this? **(6.8)(D)**

- F** 6,500 lb
G 9,000 lb
H 11,500 lb
J 13,000 lb

Friday

- 5** Which of the following units would be best for measuring the thickness of a quarter? **(6.8)(B)**

- A** centimeter
B kilometer
C meter
D millimeter



Countdown to TAKS

10 Weeks to TAKS

Monday

- 1** The table shows the depths of the Great Lakes at their deepest points. How many kilometers deep is Lake Michigan? **(6.8)(D)**

Great Lake	Depth (m)
Erie	64
Huron	229
Michigan	282
Ontario	245
Superior	407

- A** 0.00282 km
B 0.0282 km
C 0.282 km
D 2.82 km

Tuesday

- 2** El Capitan Peak is one of seven peaks in Texas with an elevation above 8,000 feet. El Capitan reaches an elevation of 8,085 feet. What is this elevation in yards? **(6.8)(D)**

- F** 1,485 yd
G 2,115 yd
H 2,695 yd
J 2,805 yd

Wednesday

- 3** Refer to the table of the Great Lakes in Exercise 1. Which Great Lake is the deepest? **(6.1)(A)**

- A** Erie
B Huron
C Ontario
D Superior

Thursday

- 4** Which of the following units would be best for measuring the amount of water in a swimming pool? **(6.8)(B)**

- F** cup
G gallon
H pint
J quart

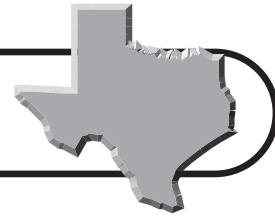
Friday

- 5** Melanie can choose white, blue, or brown socks with gym shoes, loafers, or sandals. How many different outcomes are there if she chooses a color sock and type of shoe at random? **(6.9)(A)**

- A** 5
B 6
C 8
D 9

Countdown to TAKS

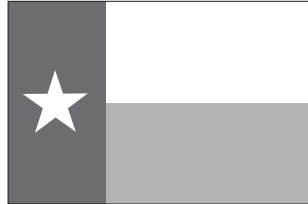
9 Weeks to TAKS



Monday

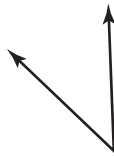
- 1** The Texas flag was adopted in 1845 when Texas became the 28th state. Which term best describes the shape of the Texas flag? **(6.6)(B) B**

- A** quadrilateral
B rectangle
C rhombus
D square



Tuesday

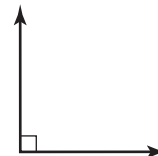
- 2** Which term best describes the angle below? **(6.6)(A) F**



- F** acute
G obtuse
H right
J straight

Wednesday

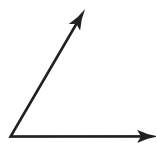
- 3** What is the measure, in degrees, of the angle shown below? **(6.8)(C)**



		9	0	.		
0	0	0	0		0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9

Thursday

- 4** Which of the following is the best estimate for the measure of the angle? **(6.8)(A) H**

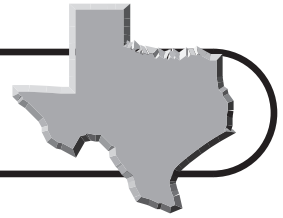


- F** 30° **H** 60°
G 45° **J** 90°

Friday

- 5** The 6th grade basketball team practices from 3:45 P.M. until 5:05 P.M. this afternoon. How long will the team practice? **(6.8)(B) D**

- A** 55 min
B 1 h 5 min
C 1 h 15 min
D 1 h 20 min



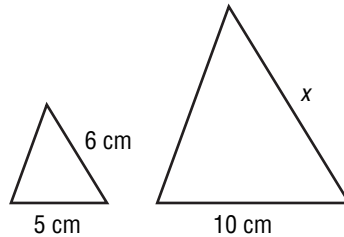
Countdown to TAKS

8 Weeks to TAKS

Monday

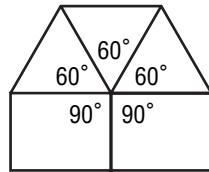
- 1 The two triangles are similar. What is the value of x ? **(6.3)(A)**

- A** 11 cm
B 12 cm
C 13 cm
D 14 cm



Tuesday

- 2 What is the sum of the angles at the point where the vertices meet in a tessellation? **(6.12)(A)**



- F** 90°
G 180°
H 270°
J 360°

Wednesday

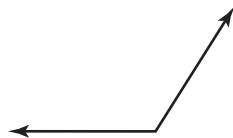
- 3 The borders of Texas shown in the circle intersect to form a 90° angle. Which term best describes this angle? **(6.6)(A)**



- A** acute
B obtuse
C right
D straight

Thursday

- 4 Which term best describes the angle below? **(6.6)(A)**



- F** acute
G obtuse
H right
J straight

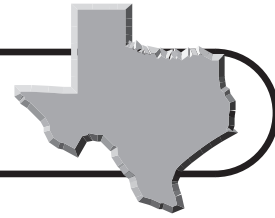
Friday

- 5 Which of the following units would be best for measuring the distance from Amarillo to Dallas? **(6.8)(B)**

- A** inch
B foot
C mile
D yard

Countdown to TAKS

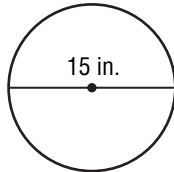
7 Weeks to TAKS



Monday

- 1** Estimate the circumference of a 15-inch pizza from Toni's Pizzeria. Round to the nearest whole number. **(6.8)(A)**

- A** 30 in.
B 45 in.
C 60 in.
D 90 in.



Tuesday

- 2** A soccer field is 100 yards long and 60 yards wide. What is the perimeter of a soccer field? **(6.8)(B)**

- F** 160 yd
G 220 yd
H 280 yd
J 320 yd

Wednesday

- 3** What is the volume of a cube with side lengths of 4 meters? **(6.8)(B)**

- A** 64 m^3
B 56 m^3
C 48 m^3
D 32 m^3

Thursday

- 4** Suppose the perimeter of a polygon is 27 inches. If the sides of the polygon are scaled by a factor of $\frac{1}{3}$, what is the new perimeter? **(6.4)(A)**

Old Perimeter	Scale Factor	New Perimeter
10	$\frac{1}{2}$	5
20	$\frac{1}{4}$	5
30	1.5	45
40	2	80
50	2.5	125

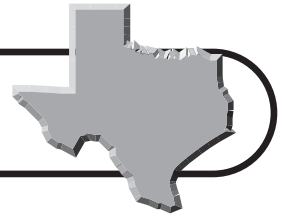
- F** 7 in.
G 9 in.
H 10 in.
J 12 in.

Friday

- 5** The Texas quarter was the 28th state quarter released. The radius of the coin is about 12 millimeters. Which expression represents the circumference of the coin? **(6.8)(A)**



- A** $12\pi \text{ mm}$
B $24\pi \text{ mm}$
C $48\pi \text{ mm}$
D $144\pi \text{ mm}$



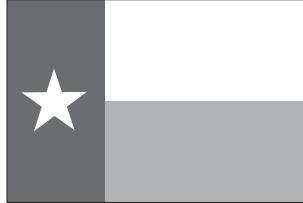
Countdown to TAKS

6 Weeks to TAKS

Monday

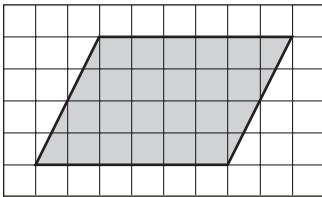
- 1** The length of the Texas state flag is 1.5 times the width. Suppose the flag in Allayah's homeroom is 2.5 feet wide. What is the perimeter of this flag? **(6.8)(B)**

- A** 3.75 ft
B 7.5 ft
C 12.5 ft
D 14.25 ft



Tuesday

- 2** What is the area, in square units, of the parallelogram? **(6.8)(B)**



- F** 12 units² **H** 22 units²
G 18 units² **J** 24 units²

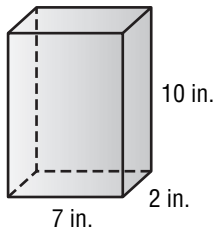
Wednesday

- 3** If the diameter of a circle is 40 millimeters, what is the length of the radius? **(6.6)(C)**

- A** 10 mm
B 20 mm
C 60 mm
D 80 mm

Thursday

- 4** What is the volume, in cubic inches, of the cereal box? **(6.8)(B)**



0	0	0	0	.	0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9

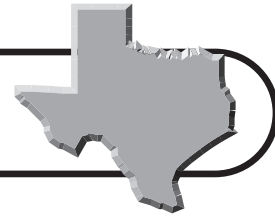
Friday

- 5** Refer to the cereal box in Exercise 4. How much cardboard was used to create the box? (*Hint: What is the surface area of the box?*) **(6.8)(B)**

- A** 208 in²
B 225 in²
C 234 in²
D 249 in²

Countdown to TAKS

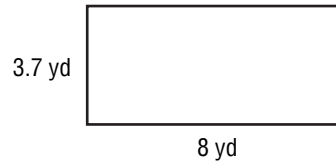
5 Weeks to TAKS



Monday

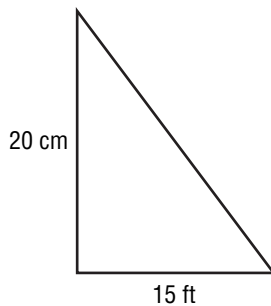
1 What is the area of the rectangle shown below? **(6.8)(B)**

- A 23.4 yd²
- B 29.6 yd²
- C 32.1 yd²
- D 33.8 yd²



Tuesday

2 A sail boat has a mainsail that is in the shape of a right triangle as shown. What is the area of the mainsail? **(6.8)(B)**



- F 35 ft²
- G 75 ft²
- H 150 ft²
- J 300 ft²

Wednesday

3 Jose makes a new rectangle by doubling the length of the previous rectangle he made. The chart shows the length, width, perimeter, and area for the first four rectangles he has made.

Width	Length	Perimeter	Area
4	6	20	24
4	12	32	48
4	24	56	96
4	48	104	192

If Jose continues the pattern, what will be the perimeter of the next rectangle he makes? **(6.4)(B)**

- A 4 ft
- B 96 ft
- C 200 ft
- D 384 ft

Thursday

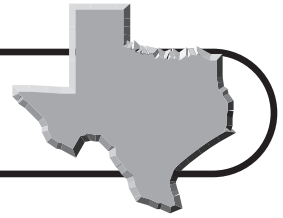
4 Concert tickets are \$15 for adults and \$8 for children. What will it cost Sally's family to attend the concert if 2 adults and 3 children go? **(6.11)(B)**

- F \$23
- G \$54
- H \$61
- J \$75

Friday

5 The infield of a baseball field is a square with side lengths of 90 feet. When you hit a homerun, you have to run around the perimeter of the infield. How far do you run altogether? **(6.8)(B)**

- A 180 ft
- B 270 ft
- C 360 ft
- D 400 ft



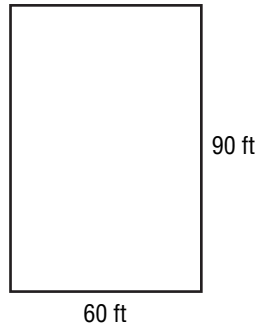
Countdown to TAKS

4 Weeks to TAKS

Monday

- 1** Bill is planting trees around the perimeter of his yard. His yard is a rectangle that is 60 feet wide and 90 feet long. How many trees will he need if they are to be planted 10 feet apart? **(6.11)(C)**

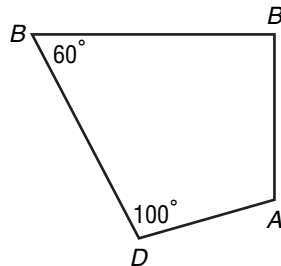
- A** 15
B 30
C 31
D 54



Tuesday

- 2** For the quadrilateral below, what is the measure of $\angle A$? **(6.6)(B)**

- F** 60°
G 90°
H 100°
J 110°



Wednesday

- 3** A triangle has 3 equal angles. What is the measurement of each angle? **(6.6)(B)**

- A** 60°
B 90°
C 100°
D 120°

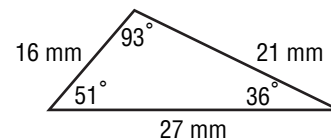
Thursday

- 4** A survey found that 7 of 10 homes in the city of Hometown have a computer. If there are 14,000 homes in Hometown, how many homes have computers? **(6.2)(C)**

- F** 7
G 4,200
H 9,800
J 20,000

Friday

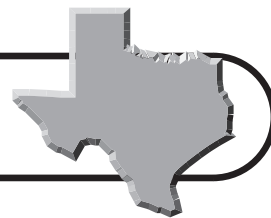
- 5** Maria drew a triangle with the measurements shown below. What type of triangle did she draw? **(6.6)(A)**



- A** obtuse
B isosceles
C equilateral
D right

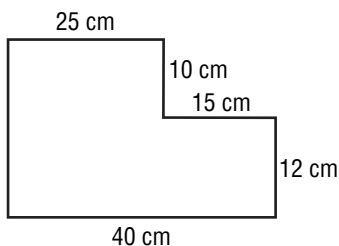
Countdown to TAKS

3 Weeks to TAKS



Monday

1 What is the perimeter of the figure shown below? **(6.11)(B)**



- A** 102 cm
- B** 124 cm
- C** 127 cm
- D** 730 cm

Tuesday

2 If $\angle A$ and $\angle B$ are supplementary and the measure of $\angle A$ is 80° , what is the measure of $\angle B$? **(6.12)(A)**

- F** 10°
- G** 20°
- H** 80°
- J** 100°

Wednesday

3 Which of the following would be a reasonable temperature for the water in a hot shower? **(6.8)(A)**

- A** 5°C
- B** 10°C
- C** 100°C
- D** 200°C

Thursday

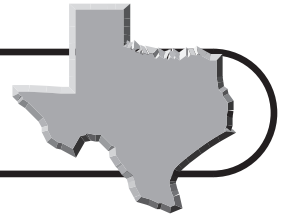
4 Which metric measurement is the best estimate for the length of a new pencil? **(6.8)(A)**

- F** 15 millimeters
- G** 15 centimeters
- H** 15 meters
- J** 15 kilometers

Friday

5 If the radius of a circle is 12 inches, what is the length of the diameter? **(6.6)(C)**

- A** 6 in.
- B** 12 in.
- C** 24 in.
- D** 48 in.



Countdown to TAKS

2 Weeks to TAKS

Monday

- 1** A random survey of 50 students asked them for their favorite sport. The chart shows the responses. Using this information, predict how many of the 800 students in a school would choose baseball as their favorite sport. **(6.3)(C)**

- A** 48
B 80
C 192
D 256

Favorite Sport	Students
Basketball	12
Football	16
Golf	6
Baseball	5
Hockey	8
Track	3

Tuesday

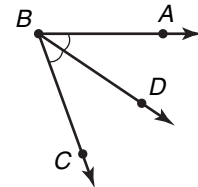
- 2** Emma got a 28% discount on a dress that sold regularly for \$70. Which of the following is a good estimate of how much she saved? **(6.2)(D)**

- F** \$2
G \$3
H \$21
J \$28

Wednesday

- 3** The measure of $\angle ABC$ is 70° . What is the measure of $\angle ABD$? **(6.8)(C)**

- A** 20°
B 35°
C 40°
D 45°



Thursday

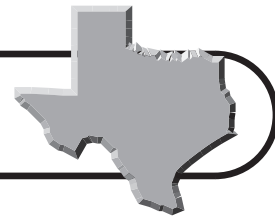
- 4** What is the probability of rolling an odd number with a number cube? **(6.9)(B)**

- F** 0.25
G 0.4
H 0.5
J 0.6

Friday

- 5** Roger is going on a trip. He expects to spend 20% of his available funds on gasoline. If he spent a total of \$815.30 on his trip, estimate how many dollars he spent on gasoline. **(6.11)(C)**

				.		
0	0	0	0		0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9



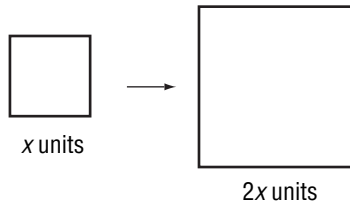
Countdown to TAKS

1 Week to TAKS

Monday

- 1** If the sides of a square are doubled, what happens to the area of the new figure? **(6.8)(B)**

- A** It is half the original.
B It is the same as the original.
C It is twice the original.
D It is four times the original.



Tuesday

- 2** Susan used 11 scoops of flour in a recipe she was cooking. Each scoop was $\frac{1}{3}$ cup. How many cups of flour did she use? **(6.1)(B)**

- F** $3\frac{2}{3}$ cups
G 4 cups
H $9\frac{2}{3}$ cups
J 11 cups

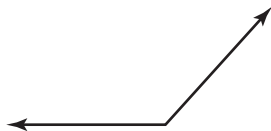
Wednesday

- 3** What is the probability of rolling a 1 or a 2 with a number cube? **(6.9)(B)**

- A** $\frac{1}{6}$
B $\frac{1}{5}$
C $\frac{1}{3}$
D $\frac{1}{2}$

Thursday

- 4** Which of the following is the best estimate for the measure of the angle below? **(6.8)(A)**



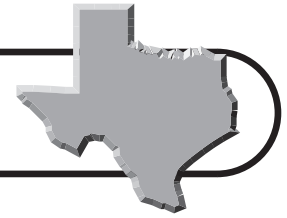
- F** 90°
G 105°
H 120°
J 150°

Friday

- 5** Which equation represents the function shown in the table? **(6.4)(A)**

Input, x	1	2	3	4	5
Output, y	4	8	12	16	20

- A** $y = 4x$
B $y = 4 + x$
C $y = x + 3$
D $x = 4y$



Benchmark Test 1

Read each question and choose the correct answer for each question.

- 1** Sean and his two brothers went to a music festival. They bought 3 tickets for \$35.50 each, 1 compact disc for \$18.00, and 3 drinks for \$2.00 each. If Sean and his two brothers split these costs evenly, which equation can be used to find c , the amount of money each person paid?

A $c = 35.50 + 2.00$
B $c = (3 \times 35.50 + 18.00 + 3 \times 2.00) \div 3$
C $c = (3 \times 35.50) \div 3 + 18.00 + 2.00$
D $c = (3 \times 35.50 + 2.00 + 18.00) \div 3$

- 2** The table below shows the measurements for three rectangles. Each rectangle has a width of 3 inches.

Perimeter of Rectangle

Width	Length	Perimeter
3 inches	5 inches	16 inches
3 inches	6 inches	18 inches
3 inches	7 inches	20 inches

Which formula could be used to find P , the perimeter of a rectangle with a length of 8 inches and a width of 3 inches?

F $P = 3 + 2 \times 8$
G $P = 3 + 8$
H $P = 3 \times 2 + 8$
J $P = 3 \times 2 + 2 \times 8$

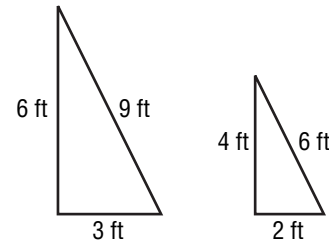
- 3** The ratio of reptiles to mammals in the Dallas Zoo is about 3 to 8. If there are 30 reptiles in the zoo, about how many mammals are there in the zoo?

A 8
B 24
C 30
D 80

- 4** A popular place for tubing and canoeing is the Guadalupe River near New Braunfels. If there are 85 people who tube down the river, and there are 32 people who canoe down the river, which ratio accurately compares the number of people who tube to the total number of people who come to the river?

F $\frac{32}{85}$
G $\frac{32}{117}$
H $\frac{117}{85}$
J $\frac{85}{117}$

- 5** The triangles shown below are similar.



What is the ratio of a side length of the smaller triangle to the corresponding side length of the larger triangle?

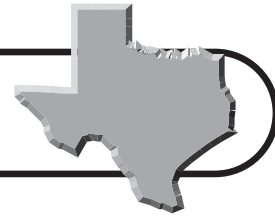
A 6 to 5 **C** 4 to 5
B 5 to 3 **D** 2 to 3

- 6** On Friday, Colleen had \$28.50. She bought 2 gifts for \$11.50 each. On Saturday night, she earned \$25 for baby-sitting. Which equation can be used to find x , the amount of money Colleen has now?

F $x = 28.50 - 11.50 + 25$
G $x = 28.50 + (2 \times 11.50) + 25$
H $x = 28.50 - (2 \times 11.50) - 25$
J $x = 28.50 - (2 \times 11.50) + 25$



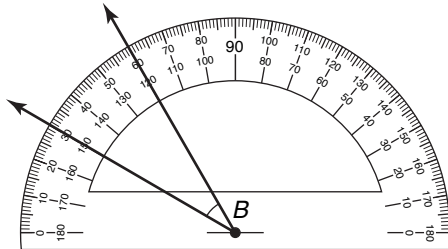
Benchmark Test 1 (continued)



- 7** Peter drew a square on a marker board to show the dimensions of a baseball base. The length of each side of the base was 15 inches. What is the area of the base?

A 250 in²
B 225 in²
C 200 in²
D 175 in²

- 8** Find the measure of $\angle B$ to the nearest degree.



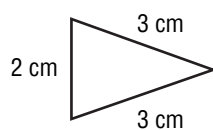
F 20°
G 30°
H 45°
J 50°

- 9** What is the mode of the numbers listed below?

3, 6, 2, 7, 6, 8, 6, 9, 4, 18

A 10
B 9
C 8
D 6

- 10** Which is the best estimate of the perimeter of the triangle?



F 6 cm **H** 10 cm
G 8 cm **J** 12 cm

- 11** Ana wants to arrange three school drill teams by uniform colors. The teams' colors are blue, red, and green. Which table shows all of the possible ways of arranging the three teams on the field?

A

blue	_____	red	_____	green
red	_____	green	_____	blue
green	_____	blue	_____	red

B

blue	_____	red	_____	green
	_____	green	_____	red
red	_____	blue	_____	green
green	_____	red	_____	blue

C

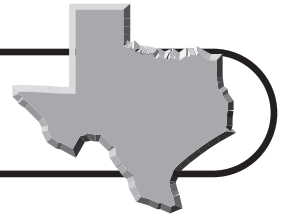
blue	_____	red	_____	green
	_____	green	_____	red
red	_____	blue	_____	green
green	_____	red	_____	blue

D

blue	_____	red	_____	green
	_____	green	_____	red
red	_____	blue	_____	green
	_____	green	_____	blue
green	_____	blue	_____	red
	_____	red	_____	blue
red	_____	green	_____	blue



Benchmark Test 1 (continued)



- 12** Each number in the sequence below has the same relationship to the number immediately before it.

320, 160, 80, 40, 20

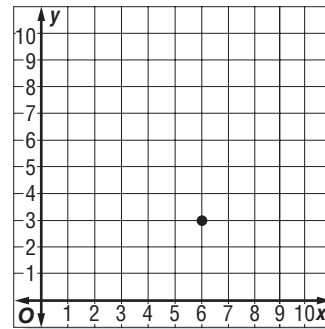
How can the next number in the sequence be found?

- F** Divide the previous number by 2
 - G** Multiply the previous number by 2
 - H** Add 2 to the previous number
 - J** Subtract 2 from the previous number
- 13** On Saturday, a gas station offered a free coffee mug with each gasoline purchase of \$35 or more. About 20 people bought more than \$35 of gas. Which integer best describes the change in the number of mugs at that gas station after Saturday?
- A** -20
 - B** -35
 - C** +20
 - D** +35
- 14** Mr. Russell bought 3 dozen breakfast burritos for a morning meeting. He gave $\frac{1}{4}$ of the burritos to one group of employees and $\frac{1}{3}$ of the burritos to another group. Which expression represents the fraction of burritos that Mr. Russell gave to the two groups all together?
- F** $\frac{1}{4} + \frac{1}{3}$
 - G** $36(\frac{1}{4} + \frac{1}{3})$
 - H** $\frac{1}{3} \times 36$
 - J** $\frac{1}{4} \times \frac{1}{3}$

- 15** If Lance Armstrong rides his bicycle at a rate of 35 miles per hour, about how long will it take for him to ride 260 miles?

- A** 5.5 h
- B** 6 h
- C** 7.5 h
- D** 10 h

- 16** Stacy is drawing a rectangle on a coordinate grid. The rectangle has one pair of sides that are 4 units long, and another pair of sides that are 2 units long. One of the rectangle's vertices is at (6, 3).

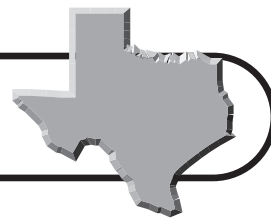


Which group of coordinates could be the other three vertices of the rectangle?

- F** (4, 3), (4, 7), (6, 7)
 - G** (5, 2), (5, 8), (2, 8)
 - H** (4, 3), (4, 7), (2, 7)
 - J** (2, 7), (4, 7), (5, 3)
- 17** Which expression can be used to find the diameter of a circle with an approximate circumference of 42 inches?
- A** 42×3.14
 - B** $42 \div 3.14$
 - C** $42 \div 2$
 - D** 42×2



Benchmark Test 1 (continued)



- 18** Heather kept a log of her activities one day. The table below shows Heather's activities and the amount of time she spent for each activity.

Heather's Log

Activity	Time Spent
Went to Mall	3 hours 35 minutes
Skating	2 hours 15 minutes
Friend's House	45 minutes
Talked on Phone	55 minutes

About how much total time did Heather spend for all of her activities?

- F** 6 h 30 min
G 7 h 30 min
H 7 h 40 min
J 8 h 45 min

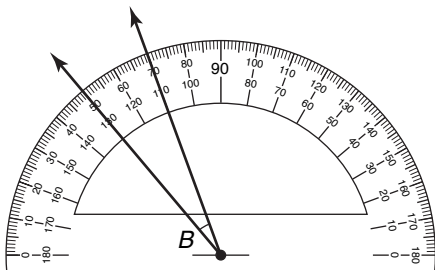
- 19** Look at the group of number pairs below.

(3, 7), (4, 8), (9, 13), (12, 16)

Which of the following number pairs belong to this group?

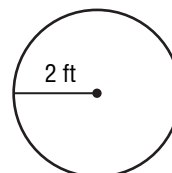
- A** (5, 9)
B (6, 11)
C (2, 5)
D (7, 14)

- 20** Find the measure of $\angle B$ to the nearest degree.



- F** 50° **H** 30°
G 45° **J** 20°

- 21** What is the approximate circumference of the circle shown below?



- A** 12.56 ft
B 12.65 ft
C 16.56 ft
D 16.65 ft

- 22** Brenda had \$125 to spend on a birthday party for a friend. She bought flowers for \$30, a cake for \$50, paper plates and napkins for \$9, cookies, and 12 balloons for \$7. What information is needed to find the amount of money left?

- F** The number of people invited to the party
G The cost of the cookies
H The price of each balloon
J The number of paper plates and napkins

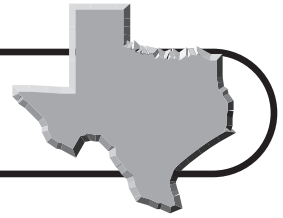
- 23** Look at the number pattern.

4, 16, 64, 256 . . .

Which number sentence can be used to find n , the fifth number in the pattern?

- A** $n = 256 \times 4$
B $n = 256 + 4$
C $n = 256 - 64$
D $n = 64 \times 4$





Benchmark Test 1 (continued)

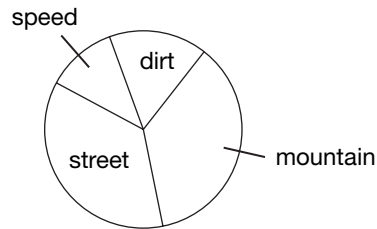
- 24** A Texas bike shop recorded the different kinds of bikes sold last year.

Bike Sales

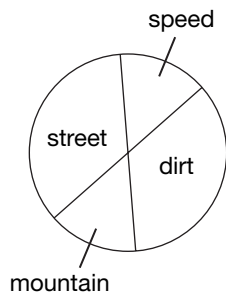
Bikes	Number Sold
Mountain	90
Street	56
Dirt	24
Speed	30

Which circle graph best displays the information shown in the table?

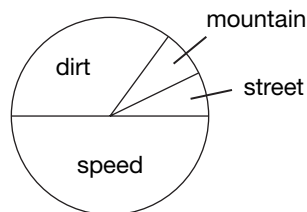
F



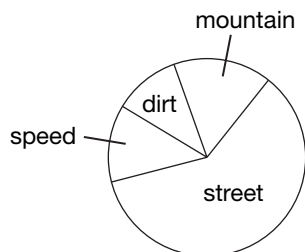
G



H

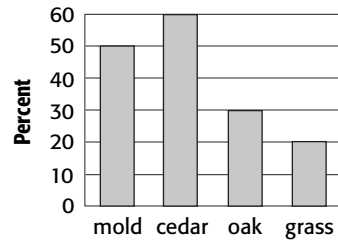


J



- 25** Jessica works for a television station in Austin. One of her responsibilities is to give the daily allergy report. She made a bar graph that shows the pollen count for Monday.

Monday Allergy Report



Which of the following shows the highest percentage?

- A** Mold
B Cedar
C Oak
D Grass

- 26** Drew is painting his art studio. Each of the four walls is 20 feet long and 10 feet high. One gallon of paint will cover about 400 square feet. If he uses 1 coat of paint, which equation can be used to find p , the number of gallons of paint Drew needs to paint the studio?

F $p = \frac{4(10 \times 20)}{4}$

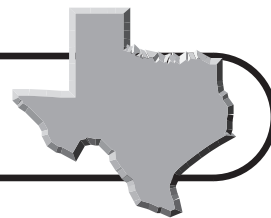
G $p = \frac{4(10 \times 20)}{400}$

H $p = \frac{4(10 \times 20)}{200}$

J $p = 400 - (10 \times 20 \times 4)$



Benchmark Test 1 (continued)



27 Mrs. Lee's social studies students were assigned a map project. She gave each student a map of Galveston. The map scale was 1 inch for every 5 miles. Which strategy can the students use to find the distance in miles between points on their map?

- A** Measure the number of inches between points and then add 5.
- B** Measure the number of inches between points and then multiply by 5.
- C** Measure the number of inches between points and then subtract 5.
- D** Measure the number of inches between points and then divide by 5.

28 Which fraction represents 0.05?

- F** $\frac{1}{20}$
- G** $\frac{5}{10}$
- H** $\frac{10}{5}$
- J** $\frac{20}{1}$

29 Mrs. Gomez asked her class to put the following numbers in order.

$$\frac{1}{25}, 0.06, \frac{2}{5}, 0.10$$

Which list shows the numbers in order from greatest to least?

- A** $\frac{2}{5}, 0.10, 0.06, \frac{1}{25}$
- B** $0.10, \frac{1}{25}, 0.06, \frac{2}{5}$
- C** $\frac{2}{5}, 0.10, \frac{1}{25}, 0.06$
- D** $0.06, 0.10, \frac{2}{5}, \frac{1}{25}$

30 What is the prime factorization of 24?

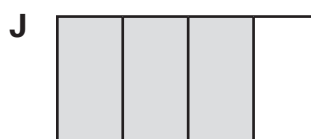
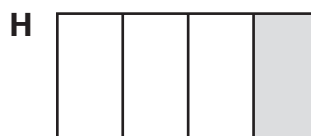
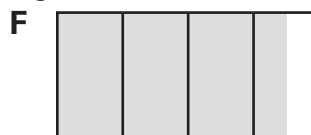
- F** $2 \times 4 \times 3$
- G** $2^3 \times 3$
- H** $2 \times 3^2 \times 4$
- J** $3 \times 4 \times 2$

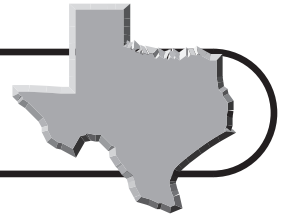
31 What is the greatest common factor of 32 and 48?

- A** 2
- B** 4
- C** 8
- D** 16

32 Debra is painting her kitchen. She painted

$\frac{1}{8}$ of the walls on Friday and $\frac{5}{8}$ of the walls on Saturday. Each model below represents the 4 walls of the kitchen. Which model is shaded to show how much Debra painted on Friday and Saturday together?





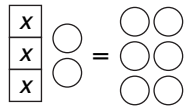
Benchmark Test 1 (continued)

- 33** Ellie has 10 yards of denim material. She cuts off two pieces so that her two friends can each make a skirt. One friend has a piece that is $3\frac{1}{4}$ yards long, and her other friend has a piece that is $3\frac{1}{2}$ yards long.

What mixed number shows the length of material Ellie has left?

- A** $3\frac{1}{4}$ yd
- B** $2\frac{3}{4}$ yd
- C** $3\frac{3}{4}$ yd
- D** $6\frac{1}{4}$ yd

- 34** Which equation does the model below represent?

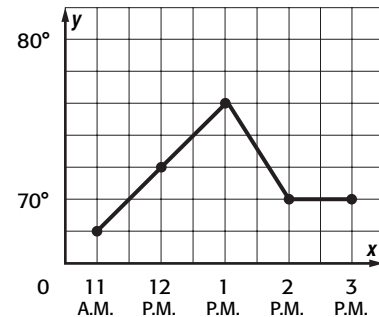


- F** $3x = 4$
- G** $3x + 2 = 2$
- H** $3x + 2 = 2x$
- J** $3x + 2 = 6$

- 35** On Friday, 89% of Mrs. Castillo's science class went to Longhorn Caverns. What decimal represents 89%?

- A** 89.0
- B** 0.89
- C** 0.98
- D** 0.089

- 36** The line graph below shows the change in temperature from 11 A.M. to 3 P.M.



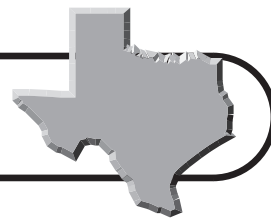
Between which two hours did the temperature decrease by the greatest amount?

- F** Between 11 A.M. and 12 P.M.
- G** Between 12 P.M. and 1 P.M.
- H** Between 1 P.M. and 2 P.M.
- J** Between 2 P.M. and 3 P.M.

- 37** A school bus driver drove from Austin to San Marcos. The bus used 3.5 gallons of gasoline. When the bus left Austin, the odometer read 5,410 miles. When it arrived in San Marcos 40 minutes later, the odometer read 5,440 miles. Which of the following cannot be determined from the information given?

- A** The time that the bus left Austin
- B** The number of miles that the school bus driver drove
- C** The number of miles per gallon that the bus got on the trip
- D** The average speed of the bus



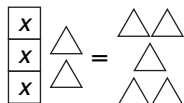


Benchmark Test 1 (continued)

- 38** Scott is setting up seats in the stadium for a field day event. He arranged 29 rows of seats with 32 chairs in each row. What is an estimate of the total number of seats that Scott set up in the stadium?

F 490
G 930
H 1,020
J 1,100

- 39** Which equation does the model below represent?



A $3x + 2 = 5$
B $3x = 4$
C $3x + 2 = 2x$
D $3x + 2 = 2$

- 40** Which expression best represents the y values in terms of the x values?

x	3	4	5	6	7	8
y	10	14	18	22	26	30

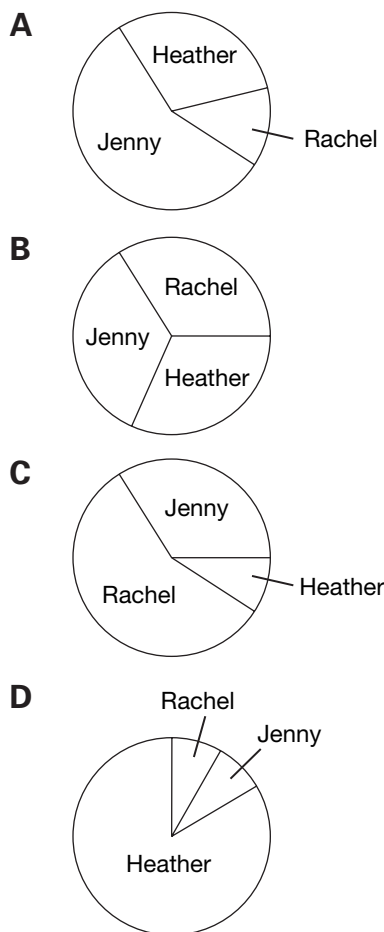
F $4x + 1$
G $x + 4$
H $4x - 2$
J $3x - 2$

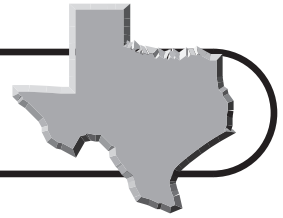
- 41** Jenny and 2 of her friends volunteered to raise money for a children's hospital. The table below shows the amount of money that each raised.

Volunteer Work

Name	Amount of Money Raised
Jenny	\$55
Heather	\$35
Rachel	\$10

Which circle graph best displays the information in the table about the percentage of money Jenny and her friends raised?





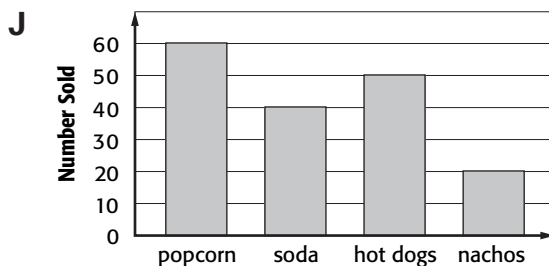
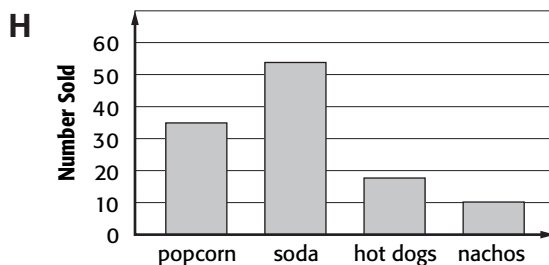
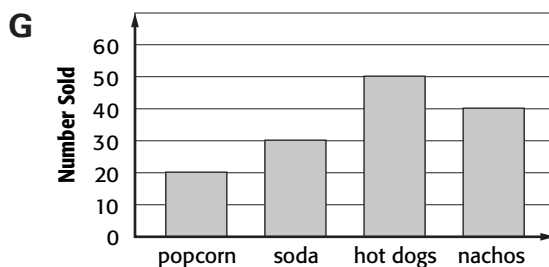
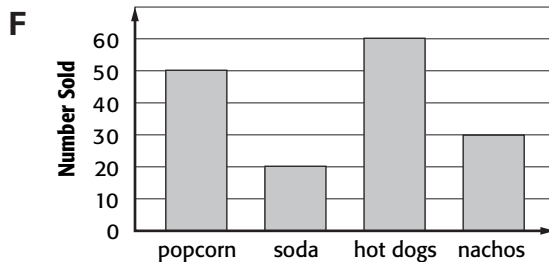
Benchmark Test 1 (continued)

- 42** Terrance works part time at the concession stand of a movie theater. The table below shows the number of snacks that Terrance sold on Saturday.

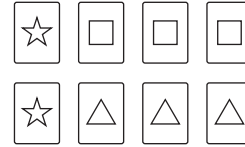
Snack Sales

Types of Snacks	Number Sold
Popcorn	35
Sodas	52
Hot Dogs	18
Nachos	10

Which bar graph correctly displays the information in the table?



- 43** Charley has a set of 8 cards with different shapes on the faces of the cards, as shown below. He placed each card face down and then drew one card at random.



What is the probability that the card does not have a square on its face?

- A** $\frac{2}{3}$ **C** $\frac{5}{8}$
B $\frac{1}{3}$ **D** $\frac{3}{8}$

- 44** Julia needs 2 feet of wrapping paper for each gift that she is wrapping. The table below shows the number of feet of wrapping paper Julia bought at four different stores.

Julia's Wrapping Paper Purchases

Store	Number of yards
Wrap It Up!	3 yards
Papers To Go	6 yards
Gifts Etc.	4 yards
Presents Galore!	5 yards

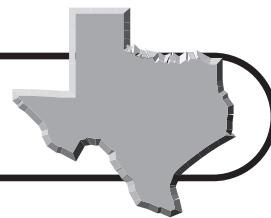
About how many gifts can Julia wrap all together?

Record your answer and fill in the bubbles on the grid below. Be sure to use the correct place value.

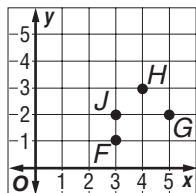
				.		
0	0	0	0		0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9



Benchmark Test 1 (continued)

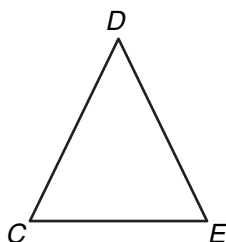


- 45** Which point represents the location of the ordered pair $(3, 2)$?



- F** Point F
G Point G
H Point H
J Point J

- 46** The three sides of the triangle below are equal in length. What is the measure of $\angle C$?



- A** 40°
B 50°
C 60°
D Not here

- 47** The drawing below shows the shape of Alicia's computer desktop.



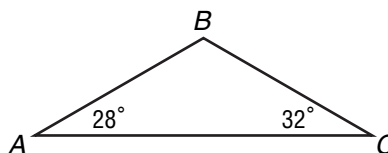
What is the measure of $\angle D$?

- F** 80°
G 85°
H 90°
J 95°

- 48** Which of the following are the angle measures of a triangle?

- A** $120^\circ, 20^\circ, 70^\circ$
B $90^\circ, 70^\circ, 60^\circ$
C $80^\circ, 70^\circ, 30^\circ$
D $70^\circ, 40^\circ, 40^\circ$

- 49** In the figure below, what type of angle is $\angle C$?



- F** Acute
G Obtuse
H Right
J Straight

- 50** Samantha is moving. She can pack 24 books in a box.

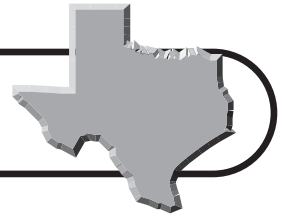
Packing Books

Boxes	Number of Books
1	24
2	48
3	72
4	96

Which equation describes the relationship between b , the number of boxes, and n , the number of books that can be packed in the boxes?

- A** $b = 24 \times n$
B $b = 24 + n$
C $b = 24 \times b$
D $b = 48 + n$





Benchmark Test 2

Read each question and choose the correct answer for each question.

- 1** Phillip and his sister went to the Texas State Fair. They bought 2 hats for \$18.95 each, 1 order of fajitas for \$6.50, and 2 drinks for \$2 each. If Phillip and his sister split these costs evenly, which equation can be used to find c , the amount of money each of them paid?

A $c = 18.95 + 2$
B $c = (2 \times 18.95) \div 2 + 6.50 + 2$
C $c = (2 \times 18.95 + 6.50 + 2 \times 2) \div 2$
D $c = (2 \times 18.95 + 2 + 6.50) \div 2$

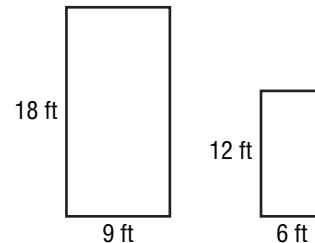
- 2** Which formula could be used to find P , the perimeter of a rectangle with a length of 9 inches and a width of 5 inches?

F $P = 5 + 2 \times 9$
G $P = 5 + 9$
H $P = 5 \times 2 + 2 \times 9$
J $P = 5 \times 2 + 9$

- 3** Many people go swimming and boating near Windy Point. If there are 46 people swimming and 32 people boating, which ratio shows the number of swimmers compared to the total number of people?

A $\frac{46}{32}$
B $\frac{78}{46}$
C $\frac{32}{78}$
D $\frac{46}{78}$

- 4** The rectangles shown below are similar.



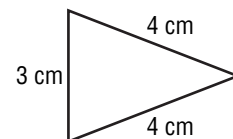
What is the ratio of a side length of the smaller rectangle to the corresponding side length of the larger rectangle?

F 2 to 3
G 4 to 5
H 5 to 3
J 6 to 5

- 5** On Monday, Darren had \$32.50. He bought 2 posters for \$10.50 each. On Saturday, he made \$18 mowing a neighbor's lawn. Which equation can be used to find x , the amount of money Darren has now?

A $x = 32.50 - 10.50 + 18$
B $x = 32.50 + (2 \times 10.50) + 18$
C $x = 32.50 - (2 \times 10.50) + 18$
D $x = 32.50 - (2 \times 10.50) - 18$

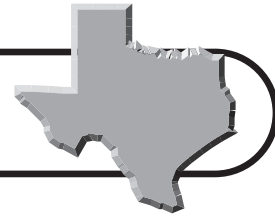
- 6** Which is the best estimate of the perimeter of the triangle?



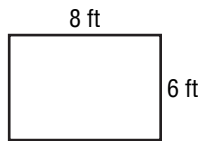
F 7 cm
G 8 cm
H 10 cm
J 11 cm



Benchmark Test 2 (continued)



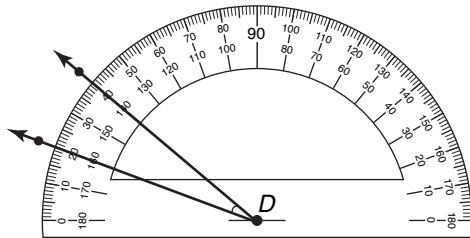
- 7 Below is a diagram of a wall in Ben's clubhouse.



Ben is going to paint the wall of the clubhouse using the measurements shown above. How many square feet is the area of the wall?

- A 48 sq ft
- B 4.8 sq ft
- C 84 sq ft
- D 480 sq ft

- 8 What is the measure of $\angle D$ to the nearest degree?



- F 20°
- G 30°
- H 45°
- J 50°

- 9 Jaime wants to find the range of the numbers below.

9, 5, 8, 2, 3, 18

What is the range of the numbers?

- A 12
- B 14
- C 16
- D 18

- 10 Logan is arranging three pumpkins next to each other on the fireplace mantle. One has a scary face, one has a funny face, and the third has the face of a cat. Which shows all of the possible ways of arranging the pumpkins on the mantle?

F scary — funny — cat

funny — cat — scary

cat — scary — funny

G scary $\begin{cases} \text{funny} \\ \text{cat} \end{cases}$ cat $\begin{cases} \text{funny} \\ \text{scary} \end{cases}$

funny $\begin{cases} \text{scary} \\ \text{cat} \end{cases}$ cat $\begin{cases} \text{funny} \\ \text{scary} \end{cases}$

cat $\begin{cases} \text{scary} \\ \text{funny} \end{cases}$ funny $\begin{cases} \text{scary} \\ \text{funny} \end{cases}$

H scary $\begin{cases} \text{funny} \\ \text{cat} \end{cases}$ cat $\begin{cases} \text{funny} \\ \text{scary} \end{cases}$

cat — scary — funny

funny — cat — scary

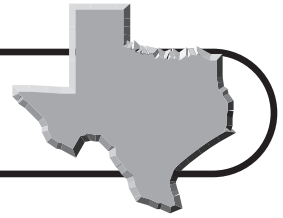
J scary $\begin{cases} \text{cat} \\ \text{funny} \end{cases}$ funny $\begin{cases} \text{cat} \\ \text{scary} \end{cases}$

funny $\begin{cases} \text{cat} \\ \text{scary} \end{cases}$ scary $\begin{cases} \text{funny} \\ \text{scary} \end{cases}$

cat $\begin{cases} \text{scary} \\ \text{funny} \end{cases}$ funny $\begin{cases} \text{funny} \\ \text{scary} \end{cases}$

funny — scary — cat





Benchmark Test 2 (continued)

- 11** Each number in the sequence below has the same relationship to the number immediately before it.

132, 125, 118, 111, 104

How can the next number in the sequence be found?

- A** Divide the previous number by 5.
- B** Multiply the previous number by 5.
- C** Add 7 to the previous number.
- D** Subtract 7 from the previous number.

- 12** On Wednesday, a sports store offered a free baseball cap with each purchase of a pair of athletic shoes over \$50. About 55 people bought a pair of athletic shoes that were over \$50. Which integer best describes the change in the number of baseball caps the sports store had at the end of the day?

- F** -50
- G** -55
- H** +50
- J** +55

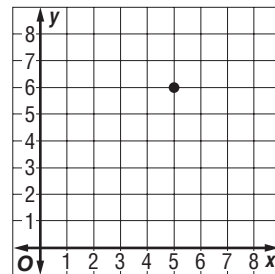
- 13** Yvette bought one dozen eggs to make 2 omelets. She used $\frac{1}{3}$ of the eggs to make the first omelet and $\frac{1}{3}$ of the eggs to make the second omelet. Which expression represents the part of the one dozen eggs that she used to make the omelets?

- A** $\frac{1}{3} + \frac{1}{3}$
- B** $12(\frac{1}{3} + \frac{1}{3})$
- C** $\frac{1}{3} \times 12$
- D** $\frac{1}{3} \times \frac{1}{3}$

- 14** If Jeff Gordon drove his race car at a rate of 200 miles per hour, about how long would it take him to drive 350 miles?

- F** 1 h 45 min
- G** 2 h 30 min
- H** 3 h 20 min
- J** 4 h

- 15** Lucy is drawing a rectangle on a coordinate grid. The rectangle has one pair of sides that is 5 units long, and another pair of sides that is 3 units long. One of the rectangle's vertices is at (5, 6).



Which group of coordinates could be the other three vertices of the rectangle?

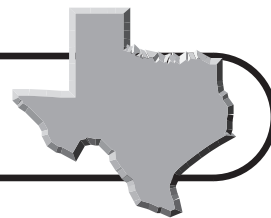
- A** (5, 3), (4, 3), (2, 8)
- B** (2, 4), (3, 5), (4, 2)
- C** (5, 1), (2, 1), (2, 6)
- D** (1, 6), (4, 7), (5, 2)

- 16** Which expression can be used to find the diameter of a circle with an approximate circumference of 58 inches?

- F** $58 \times \pi$
- G** $58 \div 2$
- H** 58×2
- J** $58 \div \pi$



Benchmark Test 2 (continued)



- 17** Victor kept a log of his activities one day. The table below shows Victor's activities and the amount of time he spent for each activity.

Victor's Log

Activity	Time Spent
Went to electronic store	2 hours 20 minutes
Lunch	45 minutes
Did chores	2 hours 15 minutes
Did homework	1 hour

About how much total time did Victor spend for all of his activities?

- A** 7 h 35 min
- B** 6 h 50 min
- C** 6 h 20 min
- D** 3 h 30 min

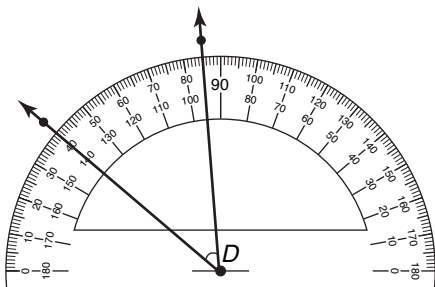
- 18** Look at the group of number pairs below.

(10, 7), (8, 5), (15, 12), (18, 15)

Which of the following number pairs belong to this group?

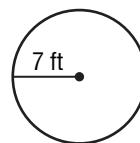
- F** (6, 9)
- G** (8, 6)
- H** (9, 6)
- J** (4, 3)

- 19** Which is the measure of $\angle D$ to the nearest degree?



- A** 20°
- B** 40°
- C** 45°
- D** 55°

- 20** What is the approximate circumference of the circle shown below?



- F** 4.30 ft
- G** 9.56 ft
- H** 43.36 ft
- J** 43.96 ft

- 21** Jason worked at the animal shelter. He was given \$265 to buy supplies. He bought dog food for \$130, leashes for \$20, blankets for \$60, 4 dog toys, and 5 collars for \$40. What information is needed to find the amount of money left?

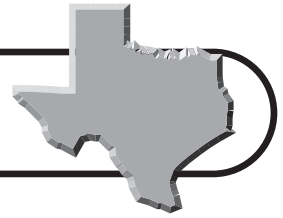
- A** The cost of the dog toys
- B** The number of animals at the shelter
- C** The number of blankets
- D** The price of each collar

- 22** If the ratio of local people to tourists in Zilker Park is about 7 to 10, about how many local people would there be if there were 125 tourists?

- F** 125
- G** 100
- H** 85
- J** 65



Benchmark Test 2 (continued)



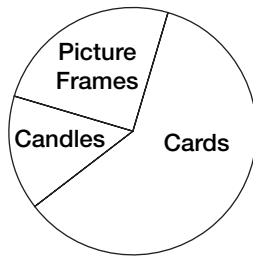
- 23** The table shows the best-selling items at Shelly's Gift Store last year.

Gift Sales

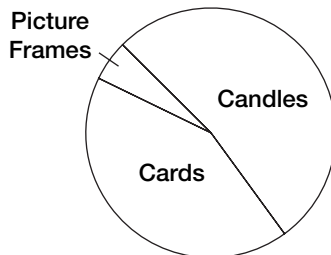
Items	Number Sold
Candles	2,500
Cards	2,000
Picture Frames	500

Which circle graph matches the information in the table?

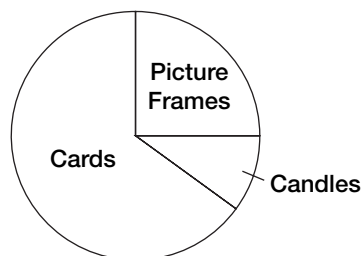
A



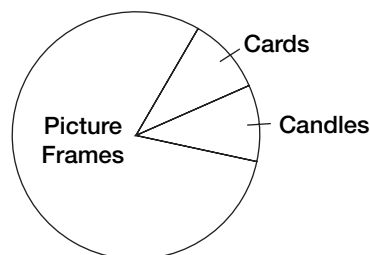
B



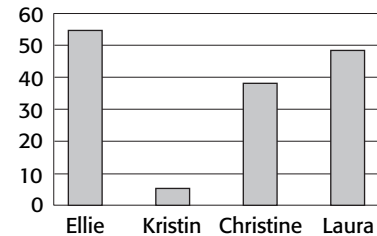
C



D



- 24** Ellie, Kristin, Christine, and Laura were selling raffle tickets for a pancake supper. The bar graph below shows how many sales the girls made.



Which girl sold the highest percentage of raffle tickets?

- F** Ellie
G Kristin
H Christine
J Laura

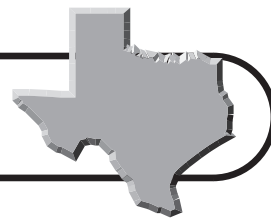
- 25** Mr. Allen is putting new insulation on his 4 attic walls. Each wall is 30 feet long and 20 feet high. One roll of insulation will cover about 125 square feet. Which equation can be used to find i , the number of rolls of insulation Mr. Allen needs to insulate the attic walls?

A $i = \frac{4(30 \times 20)}{125}$

B $i = \frac{4(20 \times 10)}{4}$

C $i = \frac{125}{30}$

D $i = 125 - (20 \times 30 \times 4)$



Benchmark Test 2 (continued)

- 26** A school group was going on a hike at Bastrop State Park. The park's map had a scale of 1 inch for every 2 miles. Which strategy can be used to find the distance in miles between points on the map?

F Measure the number of inches between points and then multiply by 2.
G Measure the number of inches between points and then add 2.
H Measure the number of inches between points and then divide by 2.
J Measure the number of inches between points and then subtract 2.

- 27** Which fraction represents 0.08?

A $\frac{80}{1}$ **C** $\frac{2}{25}$
B $\frac{25}{2}$ **D** $\frac{1}{80}$

- 28** Crispin is ordering the following numbers.

$$\frac{1}{4}, 0.03, \frac{1}{5}, 0.12$$

Which list shows the numbers in order from least to greatest?

F 0.12, $\frac{1}{5}$, 0.03, $\frac{1}{4}$
G $\frac{1}{4}$, 0.03, $\frac{1}{5}$, 0.12
H $\frac{1}{5}$, 0.03, 0.12, $\frac{1}{4}$
J 0.03, 0.12, $\frac{1}{5}$, $\frac{1}{4}$

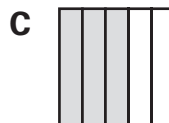
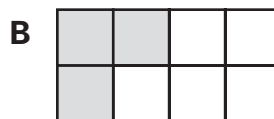
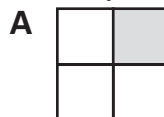
- 29** What is the prime factorization of 360?

A $2 \times 4 \times 3$
B $2^3 \times 3^2 \times 5$
C $2 \times 3^2 \times 4$
D $3 \times 4 \times 2^3$

- 30** What is the greatest common factor of 42 and 56?

F 14
G 12
H 7
J 4

- 31** Mark is planting a garden. He planted $\frac{1}{4}$ of the garden on Saturday and $\frac{1}{8}$ of the garden on Sunday. Which diagram models the part of the garden that Mark planted on Saturday and Sunday together?



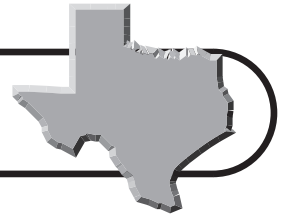
- 32** Look at the number pattern.

$$7, 35, 175, 875 \dots$$

Which number sentence can be used to find n , the fifth number in the pattern?

F $n = 875 + 5$
G $n = 875 - 5$
H $n = 87 \times 5$
J $n = 875 \times 5$





Benchmark Test 2

Read each question and choose the correct answer for each question.

- 1** Phillip and his sister went to the Texas State Fair. They bought 2 hats for \$18.95 each, 1 order of fajitas for \$6.50, and 2 drinks for \$2 each. If Phillip and his sister split these costs evenly, which equation can be used to find c , the amount of money each of them paid?

A $c = 18.95 + 2$
B $c = (2 \times 18.95) \div 2 + 6.50 + 2$
C $c = (2 \times 18.95 + 6.50 + 2 \times 2) \div 2$
D $c = (2 \times 18.95 + 2 + 6.50) \div 2$

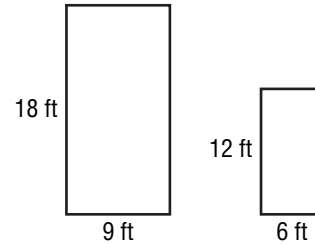
- 2** Which formula could be used to find P , the perimeter of a rectangle with a length of 9 inches and a width of 5 inches?

F $P = 5 + 2 \times 9$
G $P = 5 + 9$
H $P = 5 \times 2 + 2 \times 9$
J $P = 5 \times 2 + 9$

- 3** Many people go swimming and boating near Windy Point. If there are 46 people swimming and 32 people boating, which ratio shows the number of swimmers compared to the total number of people?

A $\frac{46}{32}$
B $\frac{78}{46}$
C $\frac{32}{78}$
D $\frac{46}{78}$

- 4** The rectangles shown below are similar.



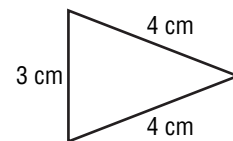
What is the ratio of a side length of the smaller rectangle to the corresponding side length of the larger rectangle?

F 2 to 3
G 4 to 5
H 5 to 3
J 6 to 5

- 5** On Monday, Darren had \$32.50. He bought 2 posters for \$10.50 each. On Saturday, he made \$18 mowing a neighbor's lawn. Which equation can be used to find x , the amount of money Darren has now?

A $x = 32.50 - 10.50 + 18$
B $x = 32.50 + (2 \times 10.50) + 18$
C $x = 32.50 - (2 \times 10.50) + 18$
D $x = 32.50 - (2 \times 10.50) - 18$

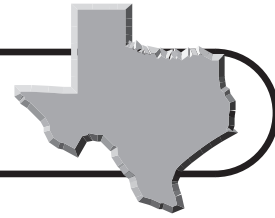
- 6** Which is the best estimate of the perimeter of the triangle?



F 7 cm
G 8 cm
H 10 cm
J 11 cm



Benchmark Test 2 (continued)



- 38** Wendy is counting the number of people standing in line at a University of Texas basketball game. She counted about 55 people standing in line in front of each ticket booth. If there are 12 ticket booths, what is an estimate of the total number of people waiting in line to buy tickets?

F 490
G 660
H 725
J 789

- 39** Which equation does the model below represent?

$$\begin{array}{|c|c|} \hline \otimes & \otimes \\ \hline \end{array} = \begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array}$$

A $2x = 4$
B $2x + 2 = 2$
C $2x + 2 = 2x$
D $2x + 2 = 4$

- 40** Which expression best represents the y values in terms of the x values?

x	6	7	8	9	10	11
y	21	25	29	33	37	41

F $4x + 3$
G $x + 3$
H $4x - 3$
J $4x - 2$

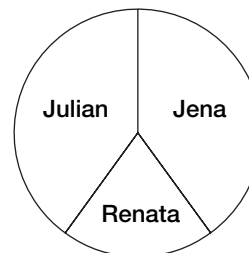
- 41** Renata, Julian, and Jena participated in a walk-a-thon for diabetes research. The table below shows the amount of money that each of the three girls raised.

Walk-a-thon for Diabetes

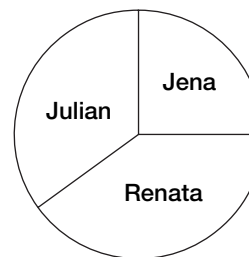
Name	Money Raised
Renata	\$90
Julian	\$60
Jena	\$50

Which circle graph matches the information in the table?

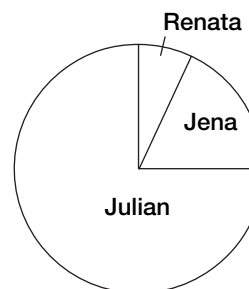
A



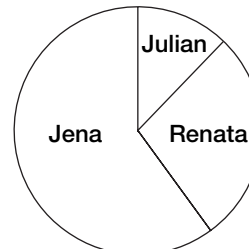
B

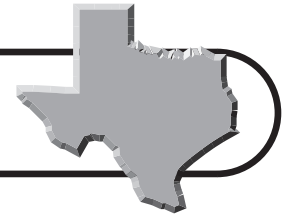


C



D





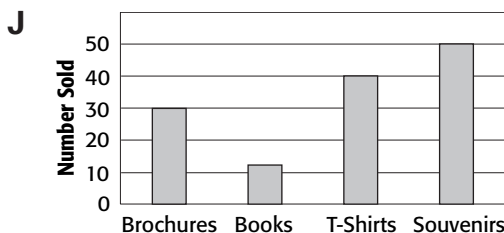
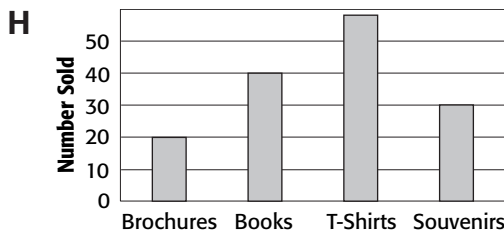
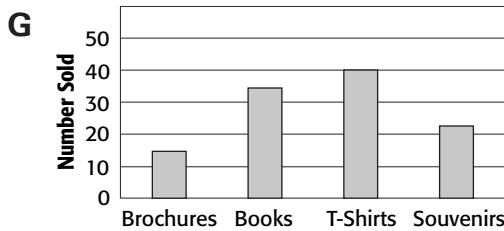
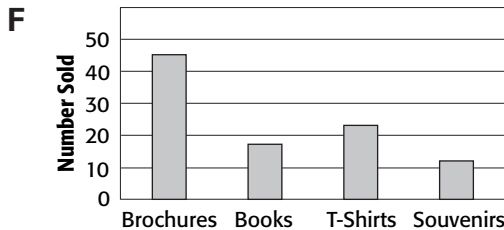
Benchmark Test 2 (continued)

- 42** Leigh works at the university art center. She sells brochures, books, T-shirts, and souvenirs. The table below shows the number of items that Leigh sold on Friday.

Sales Track

Types of Sales	Number Sold
Brochures	45
Books	18
T-shirts	22
Souvenirs	12

Which bar graph matches the information in the table? **(6.10)(A) F**



- 43** Andy buys a small bag of chocolate candy. Each bag has 3 green candies, 2 yellow candies, and 3 red candies. If Andy chooses one piece of candy from the bag at random, what is the probability that the piece of candy is not green? **(6.9)(B) C**

A $\frac{2}{3}$

C $\frac{5}{8}$

B $\frac{1}{3}$

D $\frac{3}{8}$

- 44** Mara is making pillows for gifts and needs $5\frac{3}{4}$ feet of fabric for each pillow. The table below shows the number of yards of fabric Mara bought from four different craft stores.

Mara's Fabric Purchases

Store	Number of Yards
Mika's	2
Mama's Crafts	3
Fabric Fun!	4
Warehouse Fabrics	5

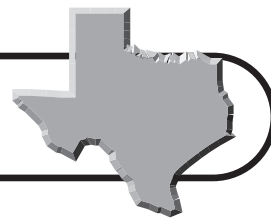
About how many pillows can Mara make? **(6.8)(D)**

Record your answer and fill in the bubbles on the grid below. Be sure to use the correct place value.

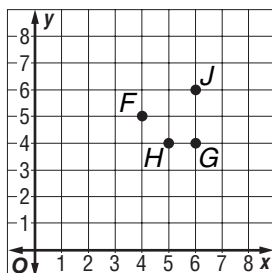
			7	.		
0	0	0	0		0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9



Benchmark Test 2 (continued)

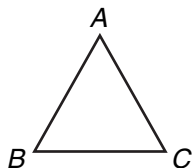


- 45** Which point best represents the location of the ordered pair $(5, 4)$?



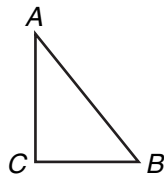
- F** Point F
G Point G
H Point H
J Point J

- 46** The three sides of the triangle below are of equal length. What is the measure of $\angle C$?



- A** 60°
B 40°
C 20°
D 10°

- 47** In the figure below, what type of angle is $\angle C$?

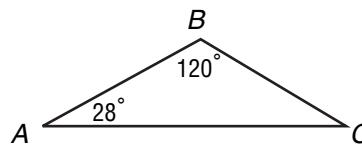


- F** Acute
G Obtuse
H Right
J Straight

- 48** Which of the following could be the angle measures of a triangle?

- A** $120^\circ, 20^\circ, 70^\circ$
B $90^\circ, 70^\circ, 60^\circ$
C $70^\circ, 90^\circ, 20^\circ$
D $70^\circ, 40^\circ, 40^\circ$

- 49** In the figure below, what type of angle is $\angle C$?



- F** Obtuse
G Right
H Straight
J Acute

- 50** James is putting baseball cards into small boxes. He can put 12 cards in each box.

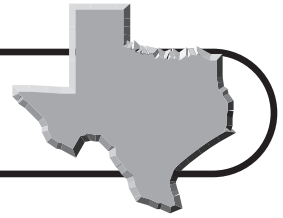
Baseball Card Boxes

Boxes	Number of cards
1	12
2	24
3	36
4	48

Which equation describes the relationship between b , the number of boxes, and n , the number of baseball cards that can fit into the boxes?

- A** $b = 12 + n$
B $b = 24 \times b$
C $b = 12 \times n$
D $b = 48 - n$





Benchmark Test 3

Read each question and choose the correct answer for each question.

- 1** Enrico and his three cousins went to the Livestock and Rodeo show in Ft. Worth. They bought 4 tickets for \$4 each, 4 burritos for \$2.50 each, and 4 drinks for \$2 each. If all of them split the costs evenly, which equation can be used to find c , the amount of money each person should pay?

A $c = 35.50 + 2$
B $c = (3 \times 35.50 + 2 + 18) \div 3$
C $c = (4 \times 4 + 4 \times 2.50 + 4 \times 2) \div 4$
D $c = (3 \times 35.50) \div 4 + 18 + 2$

- 2** The table below shows the measurements for three rectangles. Each rectangle has a width of 6 inches.

Area of a Rectangle

Width	Length	Area
6 inches	7 inches	42 inches
6 inches	8 inches	48 inches
6 inches	9 inches	54 inches

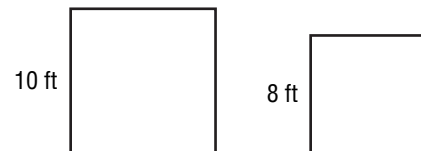
Which formula can be used to find A , the area of a rectangle with a length of 10 inches and a width of 6 inches?

F $A = 6 + 2 \times 10$
G $A = 10 \times 6$
H $A = 6 \times 2 + 10$
J $A = 6 + 10$

- 3** Each year, children go to the Houston Space Center Day Camp. If 25 girls and 28 boys sign up for camp, which ratio compares the number of girls who sign up to the total number of children who sign up for camp?

A $\frac{25}{53}$ **C** $\frac{53}{28}$
B $\frac{28}{53}$ **D** $\frac{53}{25}$

- 4** The squares shown below are proportional.



What is the ratio of a side length of the larger square to the side length of the smaller square?

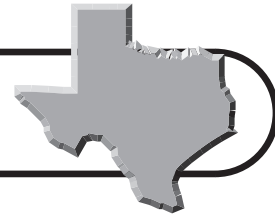
F 6 to 5 **H** 5 to 4
G 5 to 3 **J** 4 to 5

- 5** David had \$45.00 on Friday. He went to the movies with his friends and spent \$14. On Saturday, he bought lunch for himself and his sister for \$4.50 each. That afternoon, he earned \$25 for washing his mother's car. Which equation can be used to find x , the amount of money David has left?

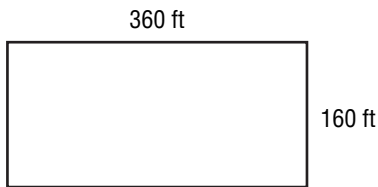
A $x = 45 - 14 + 25$
B $x = 45 + 14 + (2 \times 4.50) + 25$
C $x = 45 - (2 \times 4.50) - 25$
D $x = 45 - 14 - (2 \times 4.50) + 25$



Benchmark Test 3 (continued)



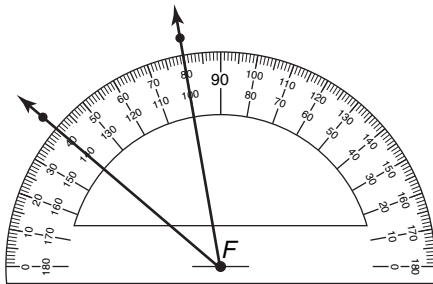
- 6 Below is a diagram of a football field.



What is the area of a football field?

- F** 46,760 sq ft **H** 57,600 sq ft
G 52,000 sq ft **J** 84,100 sq ft

- 7 What is the measure of $\angle F$ to the nearest degree?



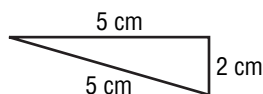
- A** 50° **C** 40°
B 45° **D** 20°

- 8 What is the mode of the numbers listed below?

5, 21, 54, 13, 21, 8, 13, 21, 6, 2

- F** 4 **H** 18
G 8 **J** 21

- 9 Which is the best estimate of the perimeter of the triangle?



- A** 14 cm **C** 9 cm
B 12 cm **D** 8 cm

- 10 Mrs. Fisher is planting a flower garden. She wants to alternate daisies, begonias, and petunias. Which shows all of the possible ways of planting the three types of flowers in her garden?

F Daisies — Begonias — Petunias

Begonias — Petunias — Daisies

Petunias — Daisies — Begonias

G Daisies $\begin{cases} \text{Begonias} \\ \text{Petunias} \end{cases}$ — Petunias — Begonias

Begonias $\begin{cases} \text{Daisies} \\ \text{Petunias} \end{cases}$ — Petunias — Daisies

Petunias $\begin{cases} \text{Daisies} \\ \text{Begonias} \end{cases}$ — Begonias — Daisies

H Daisies $\begin{cases} \text{Begonias} \\ \text{Petunias} \end{cases}$ — Petunias — Begonias

Begonias — Daisies — Petunias

Petunias — Begonias — Daisies

J Daisies $\begin{cases} \text{Petunias} \\ \text{Begonias} \end{cases}$ — Begonias — Petunias

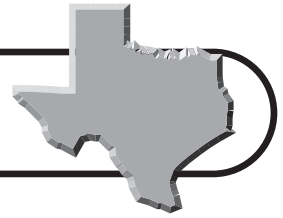
Begonias $\begin{cases} \text{Daisies} \\ \text{Petunias} \end{cases}$ — Petunias — Daisies

Petunias $\begin{cases} \text{Daisies} \\ \text{Begonias} \end{cases}$ — Begonias — Daisies

Begonias — Daisies — Petunias



Benchmark Test 3 (continued)



- 11** Each number in the sequence below has the same relationship to the number immediately before it.

210, 202, 194, 186, 178

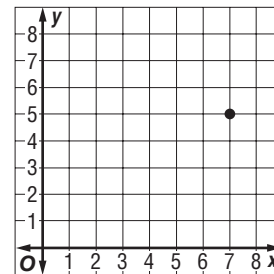
How can the next number in the sequence be found?

- A** Add 2 to the previous number.
 - B** Subtract 8 from the previous number.
 - C** Multiply the previous number by 2.
 - D** Divide the previous number by 2.
- 12** The high temperature on Monday was 83°F . On Tuesday the high temperature was 87°F . What integer represents the high temperature on Tuesday?
- F** -4
 - G** 4
 - H** 83
 - J** 87
- 13** Mrs. Najjar brought 4 dozen cinnamon rolls to work. She gave $\frac{1}{8}$ of the rolls to one group of employees, and she gave $\frac{1}{6}$ of the rolls to another group. Which expression represents the fraction of the cinnamon rolls that Mrs. Najjar gave away?
- A** $\frac{1}{8} + \frac{1}{6}$
 - B** $48(\frac{1}{8} + \frac{1}{6})$
 - C** $\frac{1}{6} \times 48$
 - D** $\frac{1}{8} \times \frac{1}{6}$

- 14** If a dolphin swims at a rate of 20 kilometers per hour, about how long will it take the dolphin to swim 30 kilometers?

- F** 1 h 30 min
- G** 2 h 45 min
- H** 2 h 15 min
- J** 3 h

- 15** Tamiko is drawing a rectangle on a coordinate grid. The rectangle has one pair of sides that is 5 units long, and another pair of sides that is 3 units long. One of the rectangle's vertices is at $(7, 5)$.

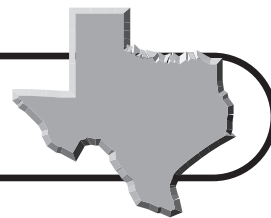


Which group of coordinates could be the other three vertices of the rectangle?

- A** $(2, 6), (2, 7), (3, 8)$
 - B** $(2, 5), (2, 8), (7, 8)$
 - C** $(2, 3), (2, 7), (2, 6)$
 - D** $(2, 7), (4, 7), (5, 3)$
- 16** Which expression can be used to find the diameter of a circle with an approximate circumference of 37 centimeters?
- F** $37 \times \pi$
 - G** $37 \div \pi$
 - H** $37 \div \pi^2$
 - J** 37×2



Benchmark Test 3 (continued)



- 17** Chris kept a record of his daily lifeguard duties. The table below shows Chris's duties and the amount of time he spent on each duty.

Chris' Lifeguard Duties

Activity	Time Spent
Put up umbrellas	1 hour 30 minutes
Gave swimming lesson	45 minutes
Hosed down pool area	2 hours 15 minutes
Guarded tower	3 hours

About how much total time did Chris spend for all of his duties?

- A** 5 h 30 min
B 6 h 20 min
C 6 h 45 min
D 7 h 30 min

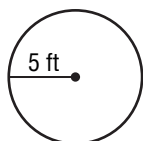
- 18** Look at the group of number pairs below.

(12, 8), (9, 5), (18, 14), (42, 38)

Which of the following number pairs belong to this group?

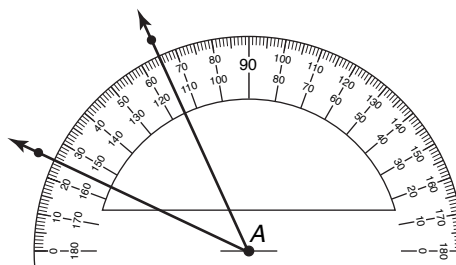
- F** (8, 5)
G (25, 22)
H (16, 12)
J (11, 8)

- 19** What is the approximate circumference of the circle shown below?



- A** 10.56 ft
B 15.70 ft
C 30.25 ft
D 31.40 ft

- 20** Which is the measure of $\angle A$ to the nearest degree?



- F** 55°
G 40°
H 35°
J 20°

- 21** Randy had \$500 to spend at a hobby store. He bought a remote-controlled helicopter for \$300, a tool for \$50, 5 decals for \$9, extra parts, and 4 batteries for \$7. What information is needed to find the amount of money left?

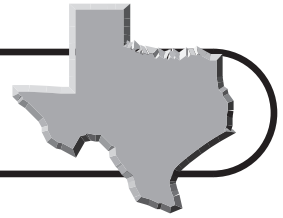
- A** The cost of the decals
B The number of batteries
C The price of the extra parts
D The cost of the helicopter

- 22** Which expression best represents the y values in terms of the x values?

x	9	10	11	12	13	14
y	16	18	20	22	24	26

- F** $2x - 2$
G $2x + 2$
H $x + 2$
J $3x - 2$





Benchmark Test 3 (continued)

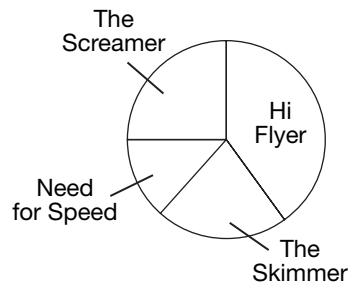
- 23** The table shows the number of sailboards that were sold last month at a local shop.

Sailboard Sales

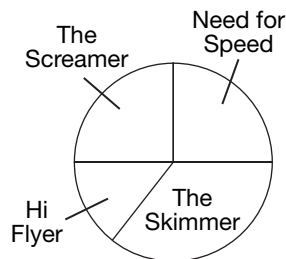
Boards	Number Sold
Hi Flyer	45
The Screamer	28
Need for Speed	12
The Skimmer	15

Which circle graph matches the information shown in the table?

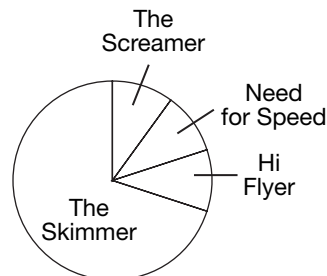
A



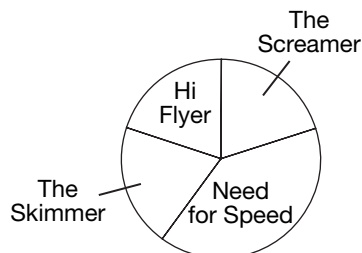
B



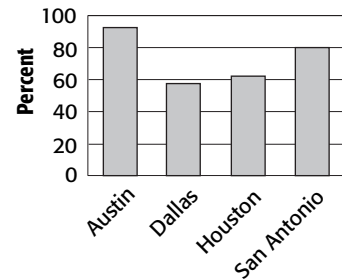
C



D



- 24** Amanda works for a travel agency in Texas. Her job is to help people choose a vacation spot. The bar graph below shows 4 popular places people go for their vacations.



Which of the following cities show the highest percentage of visitors?

- F** Austin
G Dallas
H Houston
J San Antonio

- 25** Mason is painting the walls of his den. Each of the 4 walls is 8 feet high and 10 feet long. One gallon of paint will cover about 400 square feet. Which equation can be used to find p , the number of gallons of paint needed to paint Mason's office?

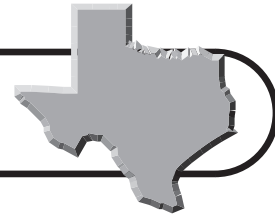
A $p = \frac{4(8 \times 10)}{4}$

B $p = \frac{4(8 \times 10)}{400}$

C $p = \frac{4(8 \times 10)}{200}$

D $p = 400 - (8 \times 10 \times 4)$





Benchmark Test 3 (continued)

- 26** Lee and his friends are going to play paintball. Lee gave each friend a map of the game field. The map scale was 1 inch for every 50 yards. Which strategy can the friends use to find the distance in yards between points on their map?

F Measure the number of inches between points and then add 50.
G Measure the number of inches between points and then multiply by 50.
H Measure the number of inches between points and then subtract 50.
J Measure the number of inches between points and then divide by 50.

- 27** Which fraction represents 0.09?

A $\frac{9}{100}$
B $\frac{9}{10}$
C $\frac{10}{9}$
D $\frac{100}{9}$

- 28** Mr. Albright asked his math students to order the following numbers.

$$\frac{1}{17}, 0.08, \frac{1}{5}, 0.38$$

Which list shows these numbers in order from greatest to least?

F 0.38, 0.08, $\frac{1}{5}$, $\frac{1}{17}$
G 0.38, $\frac{1}{5}$, 0.08, $\frac{1}{17}$
H $\frac{1}{17}$, 0.38, $\frac{1}{5}$, 0.08
J $\frac{1}{17}$, 0.08, $\frac{1}{5}$, 0.38

- 29** What is the prime factorization of 135?

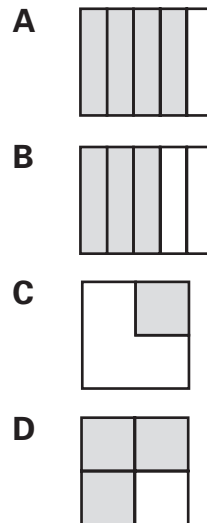
A $2 \times 3 \times 3$
B $3^3 \times 5$
C $2 \times 3^2 \times 7$
D $4 \times 4 \times 2$

- 30** What is the greatest common factor of 48 and 80?

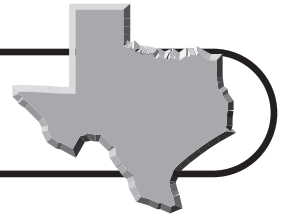
F 2
G 4
H 8
J 16

- 31** Jason is refinishing the surface of a deck.

He refinished $\frac{1}{5}$ of the deck on Monday and $\frac{3}{5}$ of the deck on Wednesday. Which model shows the part of the deck that Jason refinished on Monday and Wednesday together?



Benchmark Test 3 (continued)



- 32** Elias has 8 feet of lumber. He cuts off a $3\frac{1}{4}$ -foot-long piece and a $1\frac{1}{2}$ -foot-long piece. What is the length of the piece of lumber now?

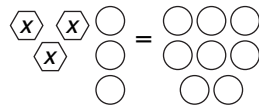
F $3\frac{1}{4}$ ft

G $3\frac{3}{4}$ ft

H $2\frac{3}{4}$ ft

J $5\frac{1}{4}$ ft

- 33** Which equation does the model below represent?



A $3x + 3 = 8$

B $3x + 2 = 2x$

C $3x + 2 = 6$

D $3x = 6$

- 34** On Friday, 9% of Mr. Garcia's math class went to a math competition. What decimal represents 9%?

F 9.0

G 0.09

H 0.90

J 0.099

- 35** If the ratio of sports utility vehicles to cars on a city street is 3 to 10, about how many sports utility vehicles would there be if there were 50 cars on the road?

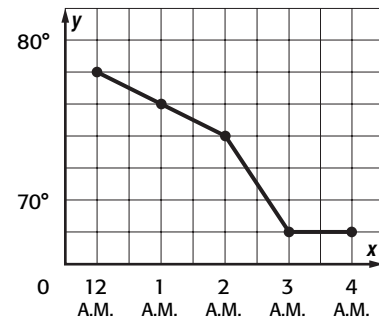
A 30

B 25

C 20

D 15

- 36** The line graph below shows the change in temperature from 12 A.M. to 4 A.M.



Between which two hours did the temperature decrease by the greatest amount?

F Between 12 A.M. and 1 A.M.

G Between 1 A.M. and 2 A.M.

H Between 2 A.M. and 3 A.M.

J Between 3 A.M. and 4 A.M.

- 37** An ice cream truck drove from one side of town to the other. The truck used 2.5 gallons of gas. When the truck left the first neighborhood, the truck's odometer read 85,410 miles. When it arrived in the second neighborhood 45 minutes later, the odometer read 85,435 miles. Which of the following cannot be determined from the information given?

A The time the truck left the first neighborhood

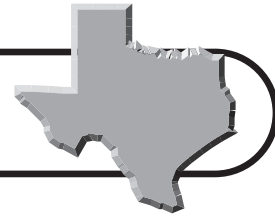
B The number of miles the truck driver drove

C The number of miles per gallon the truck averaged

D The average speed of the truck



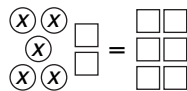
Benchmark Test 3 (continued)



- 38** A band director arranged band members into 6 rows, with 20 band members in each row. What is an estimate of the total number of band members in the formation?

F 100
G 120
H 140
J 160

- 39** Which equation does the model below represent?



A $5x = 6$
B $5x + 2 = 2$
C $5x + 2 = 2x$
D $5x + 2 = 6$

- 40** Look at the number pattern.

12, 19, 26, 33, 40 . . .

Which number sentence can be used to find n , the fifth number in the pattern?

F $n = 40 + 7$
G $n = 40 + 5$
H $n = 40 - 7$
J $n = 40 \times 7$

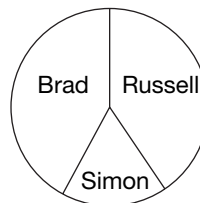
- 41** Simon, Brad, and Russell work at a fast food restaurant. They had a contest to see who could sell the most hamburgers in one day. The table below shows the number of hamburgers they each sold.

Hamburger Sales

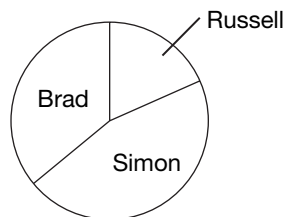
Name	Number of Hamburgers Sold
Simon	45
Brad	35
Russell	20

Which circle graph matches the information in the table?

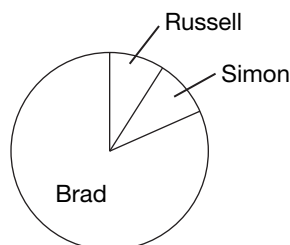
A



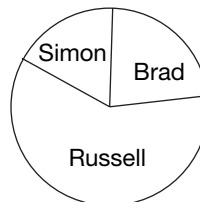
B

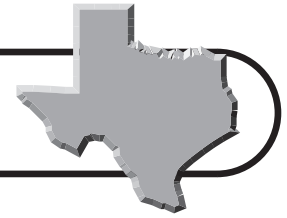


C



D





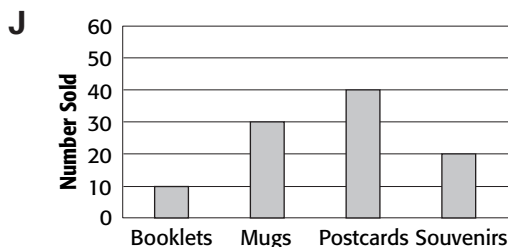
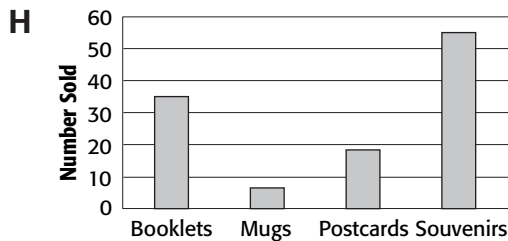
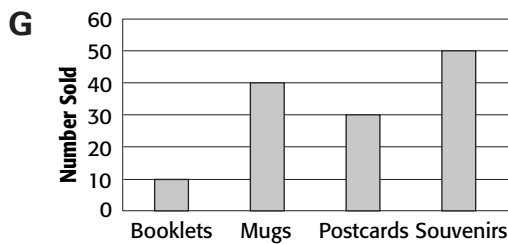
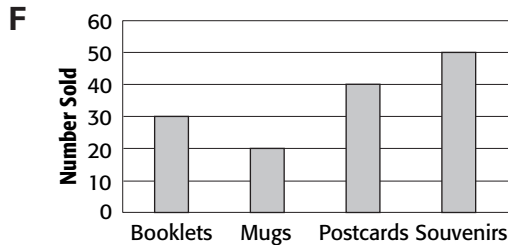
Benchmark Test 3 (continued)

- 42** Riley works part time at a newsstand. She sells booklets, mugs, postcards, and souvenirs. The table below shows the number of items Riley sold on Saturday.

Sales Track

Types of Sales	Number Sold
Booklets	32
Mugs	7
Postcards	19
Souvenirs	54

Which bar graph correctly displays the information in the table?



- 43** Cindy has 13 markers in her desk drawer. Five are blue, 2 are red, and 6 are black. If Cindy pulls one marker out of the drawer without looking, what is the probability that the marker is not black?

A $\frac{13}{7}$

B $\frac{7}{13}$

C $\frac{5}{13}$

D $\frac{2}{13}$

- 44** Zelda is making curtains for her house and needs 2 yards of fabric for each window. The table below shows the number of yards of fabric Zelda bought from 4 different stores.

Zelda's Fabric Purchases

Store	Number of feet
JJ's	15
Krafty's	9
The Stitch Station	21
Shoppers Fabrics	15

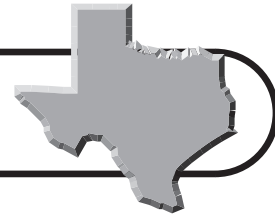
About how many curtains can Zelda make?

Record your answer and fill in the bubbles on the grid below. Be sure to use the correct place value.

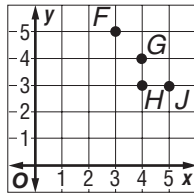
				.		
0	0	0	0		0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9



Benchmark Test 3 (continued)

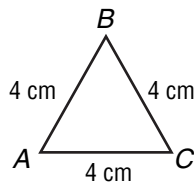


- 45** Which point best represents the location of the ordered pair $(5, 3)$?



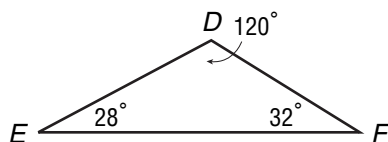
- F** Point F
G Point G
H Point H
J Point J

- 46** The three sides of the triangle below are equal in length. What is the measure of $\angle C$?



- A** 10°
B 20°
C 40°
D 60°

- 47** In the figure below, what type of angle is $\angle D$?

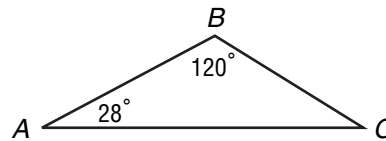


- F** Acute
G Obtuse
H Right
J Straight

- 48** Which of the following could be the angle measures of a triangle?

- A** $30^\circ, 40^\circ, 110^\circ$
B $40^\circ, 60^\circ, 100^\circ$
C $50^\circ, 10^\circ, 90^\circ$
D $60^\circ, 60^\circ, 70^\circ$

- 49** In the figure below, what type of angle is $\angle C$?



- F** Acute
G Obtuse
H Right
J Straight

- 50** Holly is putting away her sweaters for the summer. She can pack 6 sweaters in each box.

Holly's Sweaters

Boxes	Number of Sweaters
1	6
2	12
3	18

Which equation describes the relationship between b , the number of boxes, and s , the number of sweaters that can fit into the boxes?

- A** $b = 6 + s$
B $b = 6 \times s$
C $b = 6 - s$
D Not here

