Lesson 2-6

Example 1 Multiply Integers with Different Signs
Find 6(–3).

$6(-3) = -18$ The integers have different signs. The product is negative.

Example 2 Multiply Integers with Different Signs
Find –5(2).

$-5(2) = -10$ The integers have different signs. The product is negative.

Example 3 Multiply Integers with the Same Sign
Find –8(–6).

$-8(-6) = 48$ The integers have the same sign. The product is positive.

Example 4 Multiply Integers with the Same Sign
Find $(-7)^2$.

$(-7)^2 = (-7)(-7)$ There are two factors of –7.
$= 49$ The product is positive.

Example 5 Multiply Integers with the Same Sign
Find –2(-5)(-3).

$-2(-5)(-3) = [-2(-5)](-3)$ Associative Property
$= 10(-3)$ -2(-5) = 10
$= -30$ 10(-3) = -30

Example 6 Real-World Example
WEATHER The temperature outside is falling at a rate of 3°F per hour. How far has the temperature fallen after 6 hours?

If the temperature falls 3° per hour, then after 6 hours, the temperature will be –3(6) or -18° lower than it was at the start of the time period.

Example 7 Evaluate Expressions

ALGEBRA Evaluate *mnp* if *m* = –2, *n* = –5, and *p* = –4.

$mnp = (-2)(-5)(-4)$	Replace m with –2, n with –5, and p with –4.
$= (10)(-4)$	Multiply –2 and –5.
$= -40$	Multiply 10 and –4.