Lesson 6-4

Example 1 Convert Units in the Metric System
Complete 7.65 m = __?__ mm.

You need to convert meters to millimeters. Use the relationship 1 m = 1,000 mm.

1 m = 1,000 mm	Write the relationship.
7.65 × 1 m = 7.65 × 1,000 mm	Multiply each side by 7.65.
7.65 m = 7,650 mm	To multiply 7.65 by 1,000, move the decimal point 3 places to the right.

Example 2 Convert Units in the Metric System
Complete 5,150 mg = __?__ g.

You need to convert milligrams to grams. Use the relationship 1 mg = 0.001 g.

1 mg = 0.001 g	Write the relationship.
5,150 × 1 mg = 5,150 × 0.001 g	Multiply each side by 5,150.
5,150 mg = 5.150 g	To multiply 5,150 by 0.001, move the decimal point 3 places to the left.

Example 3   Real-World EXAMPLE
TRAVEL A map indicates that the nearest gas station is 4.25 kilometers from the exit off of the highway. Express this distance in meters.

You are converting kilometers to meters. Use the relationship 1 km = 1,000 m.

1 km = 1,000 m	Write the relationship.
4.25 × 1 km = 4.25 × 1,000 m	Multiply each side by 4.25.
4.25 km = 4,250 m	To multiply 4.25 by 1,000, move the decimal point 3 places to the right.

The nearest gas station is 4,250 meters from the exit off of the highway.