

NAME \_\_\_\_\_

Module 12 Attributes and Tools  
Lesson 2 Same System Conversions

# Independent Practice

## 12.2

Fill in the blanks.

1.  $92 \text{ in.} = \underline{\hspace{1cm}} \text{ ft } \underline{\hspace{1cm}} \text{ in.}$   
**7 ft 8 in.**

2.  $8 \text{ kg} = \underline{\hspace{1cm}} \text{ g}$   
**8,000**

3.  $24 \text{ c} = \underline{\hspace{1cm}} \text{ qt}$   
**6**

4.  $230 \text{ mL} = \underline{\hspace{1cm}} \text{ L}$   
**0.23**

5.  $2,510 \text{ mm} = \underline{\hspace{1cm}} \text{ m}$   
**2.51**

6.  $5 \text{ ft } 11 \text{ in.} = \underline{\hspace{1cm}} \text{ in.}$   
**71**

7.  $5 \text{ min } 22 \text{ sec} = \underline{\hspace{1cm}} \text{ sec}$   
**322**

8.  $116 \text{ oz} = \underline{\hspace{1cm}} \text{ lb}$   
 **$7\frac{1}{4}$**

9.  $18 \text{ qt} = \underline{\hspace{1cm}} \text{ gal}$   
 **$4\frac{1}{2}$**

10.  $630 \text{ min} = \underline{\hspace{1cm}} \text{ h}$   
 **$10\frac{1}{2}$**

11. A carton of lemonade contains 64 fl oz. How many cups of lemonade are in the container?

**There are eight cups of lemonade in the container.**

12. A beagle weighs 13 lb. A cocker spaniel weighs 200 oz. Which dog weighs more? How much more?

**The beagle weighs 8 oz, or  $\frac{1}{2}$  lb, more than the cocker spaniel.**

13. Marla practiced the piano for 78 min. How many hours and minutes did she practice?

**Marla practiced for 1 h and 18 min.**

14. Jerome's swimming pool is 1.2 m deep. Carly's swimming pool is 122 cm deep. Which pool is deeper? How much deeper?

**Carly's pool is 2 cm, or 0.02 m, deeper.**

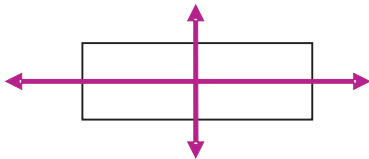
### Journal

1. Emma is converting 18 feet into yards. Should she use a unit rate of three feet to one yard or a unit rate of  $\frac{1}{3}$  yard to one foot? Explain. Then, show how to do the conversion.
2. Tell how you know how many places, and how you know in which direction, you must move the decimal point when you convert from kilometers to centimeters.
3. How can you use the prefixes in the metric system of measurement to help you remember how many years are in each of the following: decade, century, and millennium?

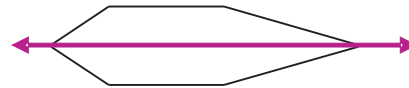
## Cumulative Review

Draw all lines of symmetry on each figure.

1.



2.



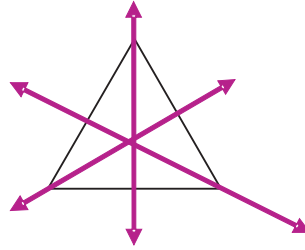
NAME \_\_\_\_\_

**Module 12**   **Attributes and Tools**  
**Lesson 2**   **Same System Conversions**

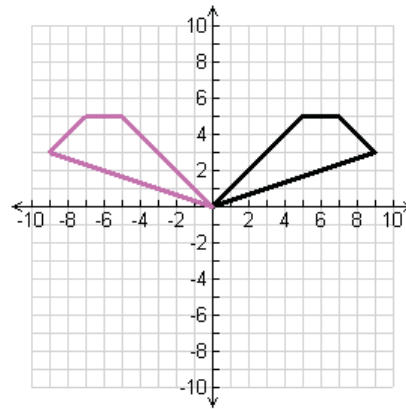
3.



4.



5. Draw the reflection of the figure across the  $y$ -axis.



**Choose the most reasonable customary and metric unit to measure each item.**

6. The length of a leaf

**Inches, centimeters**

7. The length of a marathon

**Miles, kilometers**

8. The amount of tea in a teacup

**Fluid ounces, milliliters**

9. The amount of gas in a truck's tank

**Gallons, liters**

10. The weight of a pair of eyeglasses

**Ounces, grams**

11. The weight of a bear

**Pounds, kilograms**

### Possible Journal Answers

1. Emma should use a unit rate of  $\frac{1}{3}$  yard to one foot because this will allow the feet in the denominator to cancel with the feet in the numerator when the rate is multiplied by the distance. The unit rate of  $\frac{1}{3} \frac{\text{yd}}{\text{ft}}$  can also be written as  $\frac{1}{3} \frac{\text{yd}}{\text{ft}}$ , or  $\frac{1 \text{ yd}}{3 \text{ ft}}$ . Multiply this by 18 ft:  $\frac{1 \text{ yd}}{3 \text{ ft}} \times 18 \text{ ft} = \frac{18}{3} \text{ yd} = 6 \text{ yd}$ .
2. Kilometers are greater than centimeters. To convert from any greater unit to any lesser unit, move the decimal point to the right. Moving the decimal point three places to the right will convert kilometers to meters. Moving another two places to the right will convert the meters into centimeters. Altogether, the decimal point will move five places to the right.
3. In the metric system of measurement, deca- means ten. For instance, there are 10 meters in a decameter. Therefore, there are ten years in a decade because the prefix of decade is also deca-. There are 100 centimeters in a meter. The word century begins with cent-, and there are 100 years in a century. Likewise, there are 1,000 millimeters in a meter, and there are 1,000 years in a millennium.