

# REVIEW: Converting Metric Units

Name \_\_\_\_\_

## Key Concept and Vocabulary

### Length

$1 \text{ cm} = 10 \text{ mm}$

$1 \text{ m} = 100 \text{ cm}$

$1 \text{ km} = 1000 \text{ m}$

### Weight (Mass)

$1 \text{ g} = 1000 \text{ mg}$

$1 \text{ kg} = 1000 \text{ g}$

### Volume

$1 \text{ L} = 1000 \text{ mL}$

$1 \text{ kL} = 1000 \text{ L}$

$1 \text{ cm}^3 = 1 \text{ mL}$

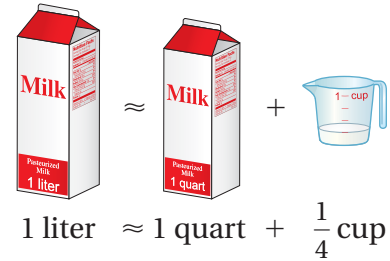
$1 \text{ L} = 1000 \text{ cm}^3$

$1 \text{ m}^3 = 1000 \text{ L}$

$1 \text{ m}^3 = 1,000,000 \text{ cm}^3$



## Visual Model



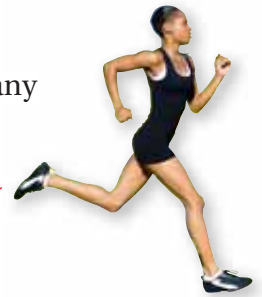
## Skill Examples

- $3 \text{ m} = 3 \cancel{\text{ m}} \cdot \frac{100 \cancel{\text{ cm}}}{1 \cancel{\text{ m}}} = 300 \text{ cm}$
- $0.75 \text{ km} = 0.75 \cancel{\text{ km}} \cdot \frac{1000 \cancel{\text{ m}}}{1 \cancel{\text{ km}}} = 750 \text{ m}$
- $50 \text{ mg} = 50 \cancel{\text{ mg}} \cdot \frac{1 \cancel{\text{ g}}}{1000 \cancel{\text{ mg}}} = 0.05 \text{ g}$
- $750 \text{ mL} = 750 \cancel{\text{ mL}} \cdot \frac{1 \cancel{\text{ L}}}{1000 \cancel{\text{ mL}}} = 0.75 \text{ L}$

## Application Example

- A runner is running in a 100 meter dash. How many kilometers is that?

$$100 \text{ m} = 100 \cancel{\text{ m}} \cdot \frac{1 \cancel{\text{ km}}}{1000 \cancel{\text{ m}}} = 0.1 \text{ km}$$



It is one-tenth of a kilometer.

## PRACTICE MAKES PURR-FECT™



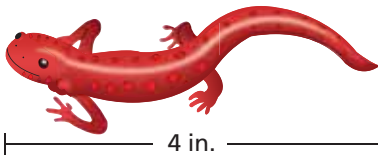
Check your answers at [BigIdeasMath.com](http://BigIdeasMath.com).

Complete the unit conversion.

- |                            |                            |   |
|----------------------------|----------------------------|---|
| 6. 30 cm = <u>0.3</u> m    | 7. 30 cm = <u>300</u> mm   | 8. 0.5 km = <u>500</u> m                |
| 9. 2 m = <u>200</u> cm     | 10. 1500 cm = <u>15</u> m  | 11. 1000 mm = <u>1</u> m                |
| 12. 250 g = <u>0.25</u> kg | 13. 0.75 kg = <u>750</u> g | 14. 500 mg = <u>0.5</u> g               |
| 15. 2 L = <u>2000</u> mL   | 16. 4000 mL = <u>4</u> L   | 17. 500 cm <sup>3</sup> = <u>500</u> mL |

**METRIC AND CUSTOMARY CONVERSION** Use the conversion 1 in.  $\approx$  2.54 cm.

18.



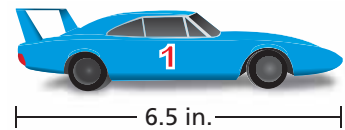
Salamander length  $\approx$  10.16 cm

19.



Flower length  $\approx$  3.15 in.

20.



Toy car length  $\approx$  16.51 cm

- SPEED** One mile is about 1.6 kilometers. What is the speed limit in kilometers per hour?

about 104 km/h

