

Relating Customary and Metric Measures

You can convert between customary and metric measures using the table below.

Customary and Metric Unit Equivalents

Length	Weight/Mass	Capacity
1 in. = 2.54 cm	1 oz \approx 28.35 g	1 L = 1.06 qt
1 m \approx 39.37 in.	1 kg \approx 2.2 lb	1 gal = 3.79 L
1 mi \approx 1.61 km	1 metric ton (t) = 1.102 T	

You multiply to convert a larger unit to a smaller unit. For example, multiply when converting from inches to centimeters.

You divide to convert a smaller unit to a larger unit. For example, divide when converting from kilograms to pounds.

$$4 \text{ in.} = \underline{\hspace{2cm}} \text{ cm}$$

An inch is larger than a centimeter.
To convert from inches to centimeters, multiply.

$$\begin{aligned} 1 \text{ in.} &= 2.54 \text{ cm} \\ 4 \times 2.54 &= 10.16 \\ 4 \text{ in.} &= 10.16 \text{ cm} \end{aligned}$$

$$174 \text{ lb} = \underline{\hspace{2cm}} \text{ kg}$$

A pound is a smaller unit than a kilogram.
To convert from pounds to kilograms, divide.

$$\begin{aligned} 1 \text{ kg} &\approx 2.2 \text{ lb} \\ 174 \div 2.2 &\approx 79.09 \\ 174 \text{ lb} &\approx 79.09 \text{ kg} \end{aligned}$$

Complete. Round to the nearest tenth.

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|------------------------------|-----------------------------|
| 1. 12 gal \approx _____ L | 2. 35 lb \approx _____ kg |
| 3. 125 in. \approx _____ m | 4. 70 mi \approx _____ km |
| 5. 34 in. \approx _____ cm | 6. 20 kg \approx _____ lb |
| 7. 55 oz \approx _____ g | 8. 18 L \approx _____ qt |

9. **Reasoning** Which is a faster speed limit, 65 mi per hour or 100 km per hour?
