5.3

Capacity for Different Systems

Try These

Circle the metric units. Underline the imperial units.

pint cup litre quart fluid ounce millilitre

250 mL

4 cups

Adèle is heating 5 qt (US) of soup for an out-of-the-cold dinner. A can of soup contains 540 mL. How many cans does Adèle need?

SI to Imperial (US)
1 mL ≐ 0.03 fl oz
1 L ≐ 2.11 pt
1 L ≐ 1.06 qt
1 L ≐ 0.26 gal

Imperial (US) to SI
1 fl oz ≐ 29.57 mL
1 pt ≐ 0.47 L, or 470 mL
1 qt ≐ 0.95 L, or 950 mL
1 gal ≐ 3.79 L, or 3790 mL

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1 How many millilitres of soup are there? 1 qt ≐ 950 mL

$$\frac{?\text{ mL}}{5\text{ qt}} \doteq \frac{950\text{ mL}}{1\text{ qt}}$$

$$\frac{?\text{ mL}}{5\text{ qt}} \times 5\text{ qt} \doteq \frac{950\text{ mL}}{1\text{ qt}} \times 5\text{ qt}$$

$$\frac{950 \times 5}{1}$$

$$? \doteq \frac{4750}{1}, \text{ or } 4750\text{ mL}$$

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2 How many cans of soup does Adèle need?

4750 mL ÷ 540 mL/can = 8.796... cans

Adèle needs 9 cans of soup.

Example

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Solution

$\frac{gal}{L}$ or $\frac{L}{gal}$

1 L ≐ 0.26 gal

153 L × $\frac{0.26}{1}$ gal/L ≐ 39.78 gal

The capacity of the tank is about 40 gal.

$\frac{153 \times 0.26}{1}$