

# Equivalent Measurements

Converting larger units of measure to smaller units of equivalent measures.  
M2 L13

1. 3 weeks = 21 days

$$3 \text{ weeks} = 3 \times ( \underline{1} \text{ week} )$$

$$= 3 \times ( \underline{7} \text{ days} )$$

$$= \underline{21 \text{ days}}$$

\* A week is a larger unit than a day.

2. 3 hours = 180 minutes

$$3 \text{ hours} = 3 \times ( \underline{1 \text{ hour}} )$$

$$= 3 \times ( \underline{60 \text{ minutes}} )$$

$$= \underline{180 \text{ minutes}}$$

\* An hour is a larger unit than a minute.

3. 1.05 meters = 105 centimeters

$$1.05 \text{ meters} = 1.05 \times ( \underline{1 \text{ meter}} )$$

$$= 1.05 \times ( \underline{100 \text{ centimeter}} )$$

$$= \underline{105 \text{ centimeters}}$$

\* A meter is a larger unit than a centimeter.

4. A crate of apples weighs 5.7 kilograms. Convert the weight to grams.

$$\begin{aligned} 5.7 \text{ kg} &= \underline{5700} \text{ g} \\ &= 5.7 \times 1 \text{ kg} \\ &= 5.7 \times 1000 \text{ g} \\ &= 5700 \text{ g} \end{aligned}$$

- A sack holds 56.75 pounds of sand. Convert the weight to ounces.

$$\begin{aligned} 56.75 \text{ lb} &= \underline{908} \text{ oz} \\ &= 56.75 \times 1 \text{ lb} \\ &= 56.75 \times 16 \text{ oz} \\ &= 908 \text{ oz} \end{aligned}$$

$$\begin{array}{r} \cancel{44} \cancel{3} \\ 56.75 \\ \times 16 \\ \hline 340.50 \\ + 567.50 \\ \hline 908.00 \end{array}$$

- The capacity of a bowl is 0.19 liters. Convert the capacity to milliliters.

$$\begin{aligned} 0.19 \text{ L} &= \underline{190} \text{ mL} \\ &= 0.19 \times 1 \text{ L} \\ &= 0.19 \times 1000 \text{ mL} \\ &= 190 \text{ mL} \end{aligned}$$