

Measurements with Multiple Units

1. Convert 14 min and 15 s to seconds.

Step 1: Convert the 14 min into seconds.

$$\begin{aligned}\frac{y}{14 \text{ min}} &= \frac{60 \text{ s}}{1 \text{ min}} \\ \frac{y}{\cancel{14 \text{ min}}} \times \cancel{14 \text{ min}} &= \frac{60 \text{ s}}{1 \cancel{\text{min}}} \times 14 \cancel{\text{min}} \\ y &= 840 \text{ s}\end{aligned}$$

Step 2: Add the two second measurements.

$$\begin{aligned}\text{total} &= 840 \text{ s} + 15 \text{ s} \\ &= 855 \text{ s}\end{aligned}$$

There are 855 s in 14 min and 15 s.

2. Convert 2 tons 75 pounds and 8 ounces to ounces.

Step 1: Convert 2 tons into pounds.

$$2 \cancel{\text{ t}} \times \frac{2000 \text{ lbs}}{1 \cancel{\text{ t}}} = 4000 \text{ lbs}$$

Step 2: Add the two pound measurements.

$$\begin{aligned}2 \text{ t } 75 \text{ lbs} &= 4000 \text{ lbs} + 75 \text{ lbs} \\ &= 4075 \text{ lbs}\end{aligned}$$

Step 3: Convert the 4075 pounds to ounces.

$$4075 \cancel{\text{ lbs}} \times \frac{16 \text{ oz}}{1 \cancel{\text{ lb}}} = 65\,200 \text{ oz}$$

Step 4: Add the two ounce measurements.

$$\begin{aligned}2 \text{ t } 75 \text{ lbs } 8 \text{ oz} &= 65\,200 \text{ oz} + 8 \text{ oz} \\ &= 65\,208 \text{ oz}\end{aligned}$$

There are 65 208 ounces in 2 tons 75 pounds and 8 ounces.