

Strategy 2: Use Division with a Remainder

Example 3

Convert 66 to pounds and ounces.

There are 16 ounces in a pound, so divide 66 by 16 and state the remainder.

$$\frac{66}{16} = 4R2$$

This means there are 4 whole pounds with 2 ounces left over in 66 ounces. So,
 $66 \text{ oz} = 4 \text{ lbs } 2 \text{ oz}.$



Check Up

1. Complete the following conversions.
 - a. 14 minutes and 15 seconds to seconds
 - b. 3 yards 2 feet and 7 inches to inches
 - c. 199 feet to yards and feet
 - d. 76 ounces to pounds and ounces



Compare your answers.

1. Complete the following conversions.
 - a. 14 minutes and 15 seconds to seconds

$$\begin{aligned} \frac{x}{14 \text{ min}} &= \frac{60 \text{ s}}{1 \text{ min}} \\ \frac{x}{14 \text{ min}} \cdot 14 \text{ min} &= \frac{60 \text{ s}}{1 \text{ min}} \cdot 14 \text{ min} \\ x &= 840 \text{ s} \\ 14 \text{ min } 15 \text{ s} &= 840 \text{ s} + 15 \text{ s} \\ &= 855 \text{ s} \end{aligned}$$

- b. 3 yards 2 feet and 7 inches to inches

$$3 \text{ yd} \cdot \frac{36 \text{ in}}{1 \text{ yd}} = 108 \text{ in}$$

$$2 \text{ ft} \cdot \frac{12 \text{ in}}{1 \text{ ft}} = 24 \text{ in}$$

$$3 \text{ yd } 2 \text{ ft } 7 \text{ in} = 108 \text{ in} + 24 \text{ in} + 7 \text{ in} \\ = 139 \text{ in}$$

- c. 199 feet to yards and feet

$$\frac{199}{3} = 66.\bar{3}$$

$$66 \text{ yd} \cdot \frac{3 \text{ ft}}{1 \text{ yd}} = 198 \text{ ft}$$

$$199 \text{ ft} - 198 \text{ ft} = 1 \text{ ft}$$

$$199 \text{ ft} = 66 \text{ yd } 1 \text{ ft}$$

- d. 76 ounces to pounds and ounces

$$\frac{76}{16} = 4\text{R}12$$

$$76 \text{ oz} = 4 \text{ lbs } 12 \text{ oz}$$