

Name: 3rd Hour

Hour: _____

Converting Units - Day 3

Review:

1. How many inches are in 6 feet?

$$\frac{6 \cancel{ft}}{1} \times \frac{12 \cancel{in}}{1 \cancel{ft}} = \frac{72 \cancel{in}}{1} = 72 \text{ inches}$$

in to feet

2. How many yards are in 54 feet?

$$\frac{54 \cancel{ft}}{1} \times \frac{1 \cancel{yds}}{3 \cancel{ft}} = \frac{54 \cancel{yds}}{3} = 18 \text{ yds}$$

One Step Conversions Starting with Rates - Review

Example 1: \$144 per pound equals how many \$ per ounce?

Step 1: Set up the given, the get, and the ratios (the key).

$$\frac{\$144}{1 \cancel{lb}} \times \frac{1 \cancel{lb}}{16 \text{ oz}} = \boxed{\frac{\$9}{1 \text{ oz}}}$$

Step 2: Ensure the units cancel!

Step 3: Multiply, Multiply, Divide!

$$\frac{144}{16} \div 16 = 9$$

So, \$144 per pound equals \$9 per oz.

Example 2: 35 calories per ounce is how many calories per pound?

Step 1: Set up the given, the get, and the ratios (the key).

$$\frac{35 \text{ cal}}{1 \cancel{oz}} \times \frac{16 \cancel{oz}}{1 \text{ lb}} = \boxed{\frac{560 \text{ cal}}{1 \text{ lb}}}$$

Step 2: Ensure the units cancel!

Step 3: Multiply, Multiply, Divide!

$$\frac{35 \cdot 16}{1 \cdot 1} = \frac{560}{1}$$

So, 35 calories per ounce equals 560 calories per pound.

Two Step Conversions with Rates

Example 3: 4 inches per minute equals how many feet per hour?

Circle given
square get

Step 1: Set up the given, the get, and the ratios (the key). Ask yourself, "Am I changing the top, the bottom, or both?" This tells you how many ratios you need!

$$\frac{4 \cancel{\text{in}}}{1 \cancel{\text{min}}} \times \frac{1 \cancel{\text{ft}}}{12 \cancel{\text{in}}} \times \frac{60 \cancel{\text{min}}}{1 \text{ hr}} = \boxed{\frac{20 \text{ ft}}{1 \text{ hr}}}$$

Step 2: Ensure
the units cancel!

Step 3: Multiply, Multiply, Divide!

$$\frac{4 \cdot 1 \cdot 60}{1 \cdot 12 \cdot 1} = \frac{240}{12} = 20$$

20 feet per hour

Example 4: Jimmy can eat 3 jelly beans per second. How many dozen jelly beans can he eat in one minute?

Step 1: Set up the given, the get, and the ratios (the key). Ask yourself, "Am I changing the top, the bottom, or both?" This tells you how many ratios you need!

$$\frac{3 \cancel{\text{beans}}}{1 \cancel{\text{sec}}} \times \frac{1 \cancel{\text{doz beans}}}{12 \cancel{\text{beans}}} \times \frac{60 \cancel{\text{sec}}}{1 \text{ min}} = \boxed{\frac{15 \text{ doz beans}}{1 \text{ min}}}$$

Step 2: Ensure
the units cancel!

Step 3: Multiply, Multiply, Divide!

$$\frac{3 \cdot 1 \cdot 60}{1 \cdot 12 \cdot 1} = \frac{180 \text{ Divide}}{12} = 15$$

Exit Quiz :) You got this!

15 dozen beans per minute