

$\frac{65 \text{ mi}}{1 \text{ h}} \cdot \frac{5,280 \text{ ft}}{1 \text{ mi}} \cdot \frac{1 \text{ h}}{60 \text{ min}}$	<p>3. Fill in the numbers associated with the units. Make sure to look at the <i>Conversion Relationships</i> on the FSA Reference Sheet to find the <i>Conversion Relationships</i> associated with the correct units in the formula. The first Set of units (<math>\frac{1}{2}</math>) will be from the problem itself</p>
$\frac{65 \cancel{\text{mi}}}{1 \cancel{\text{h}}} \cdot \frac{5,280 \text{ ft}}{1 \cancel{\text{mi}}} \cdot \frac{1 \cancel{\text{h}}}{60 \cancel{\text{min}}}$	<p>4. Cross out <u>common unit(s)</u> (one from the Numerator and one from the Denominator)</p> <p>★ You should be left with the two units you're converting to</p>
$\frac{65 \cdot 5,280 \text{ ft} \cdot 1}{1 \cdot 1 \cdot 60 \text{ min}} \rightarrow \frac{343,200}{60 \text{ min}} \rightarrow \frac{5,720 \text{ ft}}{1 \text{ min}}$	<p>5. Compute and Simplify.</p>

The speed limit is 5,720 feet per minute.

$$\frac{A}{B} \cdot \frac{C}{D} \cdot \frac{E}{F}$$

**YOUR TURN**

Convert each rate.

$$\frac{10 \cancel{\text{mi}}}{1 \cancel{\text{h}}} \cdot \frac{5,280 \text{ ft}}{1 \cancel{\text{mi}}} \cdot \frac{1 \cancel{\text{h}}}{60 \text{ min}} \rightarrow \frac{52,800}{60} \rightarrow \boxed{\frac{880 \text{ ft}}{1 \text{ min}}}$$

1. 10 mi/h = 880 ft/min

2. 35 cm/sec = 21 m/min

$$\frac{A \ 35 \cancel{\text{cm}}}{B \ 1 \cancel{\text{sec}}} \cdot \frac{1 \cancel{\text{m}}}{100 \cancel{\text{cm}}} \cdot \frac{60 \cancel{\text{sec}}}{1 \text{ min}} \rightarrow \frac{35 \cdot 1 \cdot 60}{1 \cdot 100 \cdot 1} = \frac{2100 \text{ m}}{100} = \boxed{\frac{21 \text{ m}}{1 \text{ min}}}$$

3. Tina walks at a rate of 180 feet per minute. How many feet per second does Tina walk?

$$\frac{A \ 180 \text{ ft}}{B \ 1 \cancel{\text{min}}} \cdot \frac{1 \cancel{\text{ft}}}{1 \cancel{\text{ft}}} \cdot \frac{1 \cancel{\text{min}}}{60 \text{ sec}} \rightarrow \frac{180 \cancel{\text{ft}}}{60 \text{ sec}} \rightarrow \boxed{\frac{3 \text{ ft}}{1 \text{ sec}}}$$