



## Additional Practice 12-7 Convert Units of Time

### Another Look!

Remember:

To change from hours to minutes,  
or from minutes to seconds, multiply by  
60. To change from seconds to minutes,  
or from minutes to hours,  
divide by 60.



### Change from one unit of time to another.

From a smaller unit to a larger unit:

500 seconds = \_\_\_\_\_ minutes

You know 60 seconds = 1 minute.

Divide 500 by 60.

$$\frac{500}{60} = 8 \frac{20}{60} = 8 \frac{1}{3}$$

So, 500 seconds =  $8 \frac{1}{3}$  minutes.

From a larger unit to a smaller unit:

4.5 hours = \_\_\_\_\_ minutes

You know 1 hour = 60 minutes.

Multiply 4.5 by 60.

$$4.5 \times 60 = 270$$

So, 4.5 hours = 270 minutes.

In **1–6**, convert each time.

1. 8 minutes = **480** seconds

2. 90 minutes =  **$1 \frac{1}{2}$**  hours

3. 5.5 hours = **330** minutes

4. 195 seconds =  **$3 \frac{1}{4}$**  minutes

5. 156 seconds = **2** minutes, **36** seconds

6. 4 hours, 5 minutes = **245** minutes

In **7–8**, compare. Write  $>$ ,  $<$ , or  $=$  in each  $\bigcirc$ .

7. 600 minutes  $\bigcirc$  10 hours

8. 110 minutes  $\bigcirc$   $1 \frac{1}{4}$  hours



9. A waffle iron can make a waffle in 4 minutes. How many waffles can be made in an hour?

**15 waffles**

10. Howard slept from 9:00 P.M. until 6:00 A.M. the next morning. How many minutes did he sleep?

**540 minutes**

11. Maria does weightlifting for 30 seconds and then aerobics for 60 seconds. She repeats this 10 times. If she does not take any breaks, how many minutes does she exercise?

**15 minutes**

12. **Make Sense and Persevere** Every 20 seconds, a sprinkler passes across a garden. Will it take more than an hour for the sprinkler to cross the garden 150 times? Explain.

**No; Sample answer: It will take  $20 \times 150 = 3,000$  seconds.  $3,000 \div 60 = 50$  minutes.  $50 \text{ minutes} < 60 \text{ minutes}$ .**

13. **Higher Order Thinking** Gina made a playlist of children's songs. In 1 hour, how many more times could she play "Row, Row, Row Your Boat" than "Twinkle, Twinkle, Little Star"?

**270 times**

Favorite Children's Songs	
Name	Time
Row, Row, Row Your Boat	8 seconds
Twinkle, Twinkle, Little Star	20 seconds
Hickory Dickory Dock	10 seconds

### Assessment Practice

14. The last total solar eclipse in North America occurred in August 2017. The durations of the total eclipse in three U.S. cities are shown at the right. Write the names of the cities from longest duration to shortest.

**Hopkinsville, Alliance, Casper**

