Name _____

Reteaching
12-5

Distance, Rate, and Time

The formula $d = r \times t$ uses symbols to relate the quantities for distance (d), average rate of speed (r), and time (t).

Example 1

How long will it take a car moving at 50 mph to travel 70 mi?

Substitute what you know into the formula $d = r \times t$.

$$70 \text{ mi} = 50 \text{ mph} \times t$$

Solve the equation.

$$\frac{70 \text{ mi}}{50 \text{ mph}} = \frac{50 \text{ mph} \times t}{50 \text{ mph}}$$

$$1.4 \text{ h} = t$$

It will take 1.4 h to travel 70 mi at 50 mph.

Example 2

A car travels 325 mi in 5 h. What is its rate of speed?

Substitute what you know into the formula $d = r \times t$.

$$325 \text{ mi} = r \times 5 \text{ h}$$

Solve the equation.

$$\frac{325 \text{ mi}}{5 \text{ h}} = \frac{r = 5 \text{ h}}{5 \text{ h}}$$

$$65 \text{ mph} = r$$

The rate of speed of a car that travels 325 mi in 5 h is 65 mph.

1. An airplane flies at 250 mph. How far will it travel in 5 h at that rate of speed?

Substitute the information you know into the formula $d = r \times t$:	Solve the equation.	Write the answer with the correct units.
$d =$ _____	_____	_____

Find the missing variable.

2. Distance = 60 km time = 4 h rate = _____

3. Distance = 24 cm time = 12 sec rate = _____

4. Distance = 56 yd time = _____ rate = 8 yd/min

5. Distance = _____ time = 25 d rate = 160 m/d

6. Writing to Explain A storm is 15 mi from Lodi. If the storm travels at 6 mph towards the city, how many hours will it take for the storm to get to Lodi? Show your work.

_____