

GETTING READY FOR GRADE 7

LESSON

GR3.1 Exploring Rates



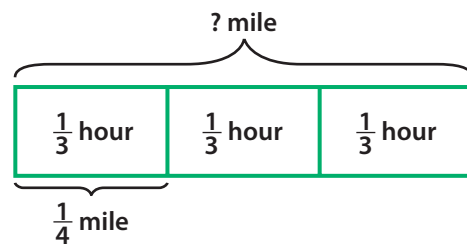
ESSENTIAL QUESTION

How do you find a unit rate?

EXPLORE ACTIVITY

Amber rows $\frac{1}{4}$ mile every 20 minutes, or $\frac{1}{3}$ hour. Orlando rows 6 miles in 9 hours. How far do they each row in 1 hour?

- A** Use the bar diagram to help find Amber's unit rate, or how far she rows in one hour. How many $\frac{1}{3}$ -hours are in 1 hour? _____



- B** Complete the table to show how far Amber rows.

Distance (mi)	$\frac{1}{4}$		
Time (h)	$\frac{1}{3}$	$\frac{2}{3}$	1

- C** Another way to find a unit rate is through division. First, determine the units of Orlando's rate.

The rate is distance in _____ per time in _____.

- D** Find Orlando's rate of rowing by writing a fraction and simplifying.

Distance traveled: _____ Time: _____

$$\frac{\text{distance}}{\text{time}} = \frac{\square \text{ miles}}{\square \text{ hours}} = \frac{\square}{\square} \text{ mile per hour}$$

REFLECT

1. Which person rows farther in 1 hour? Explain.

YOUR TURN

2. Rory climbs $3\frac{1}{2}$ feet every 15 minutes, or $\frac{1}{4}$ hour. How far does he climb in 1 hour? Complete the table to find his unit rate.

Distance (ft)	$3\frac{1}{2}$			
Time (h)	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1

Rory climbs _____ feet per hour.

Guided Practice

Find each unit rate.

1. Joaquin read 2,600 words in 8 minutes.

Identify units: words per _____

Write a fraction: $\frac{\boxed{} \text{ words}}{\boxed{} \text{ minutes}}$

Simplify: $\frac{\boxed{} \text{ words}}{\boxed{} \text{ minutes}} = \frac{\boxed{} \text{ words}}{1 \text{ minute}}$

Joaquin read _____ words per minute.

2. Thanh drove 6 miles in $\frac{1}{5}$ hour.

Distance (mi)	6				
Time (h)	$\frac{1}{5}$	$\frac{2}{5}$			

Thanh drove _____ miles per hour.



ESSENTIAL QUESTION CHECK-IN

3. Which is better in comparing rates, the rate or the unit rate?

Independent Practice

Find each unit rate.

4. $2\frac{1}{4}$ yards in $\frac{1}{2}$ hour

5. $\frac{2}{5}$ m in $\frac{1}{10}$ minute

6. $\frac{2}{3}$ feet in $\frac{1}{12}$ sec

7. $5\frac{1}{2}$ mi in $\frac{1}{4}$ day

8. A diver descends 50 feet every $\frac{1}{4}$ hour. What is the diver's unit rate?

9. You can buy 5 cans of green beans on sale at the Village Market for \$3.00. You can buy 10 of the same cans of green beans at Member's Warehouse for \$6.70. Which is the better buy? Explain your thinking.
