

# Assignment

## Write

How can unit rates be helpful when solving problems?

## Remember

A rate is a ratio that compares quantities with different units. A unit rate is a rate in which the numerator or denominator (or both) is 1.

A unit rate is represented by the ordered pair  $(1, r)$  on a coordinate plane.

## Practice

Complete each table and write a unit rate for the given situation.

1. General house cleaning (sweeping the floors, vacuuming, laundry, etc.) can burn 470 calories every 2 hours.

Time (hours)	1	2	3	4	5
Calories burned					

2. A full strip plus another half of a strip of staples contains 315 staples.

Number of Strips	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$
Number of Staples					

3. Victoria is making punch for a school party. The recipe she is using calls for 2 cups of lemonade to make 5 cups of punch.

Cups of Lemonade					
Cups of Punch					

Complete each table and write a unit rate for the given situation. Then, graph the relationship on a coordinate plane.

4. The owner of a city parking garage uses a rate table so that he can look up the parking charges quickly.

<b>Hours</b>	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
<b>Charge</b>	\$2.25							

5. The owner of a city parking garage uses a rate table so that he can look up the parking charges quickly.

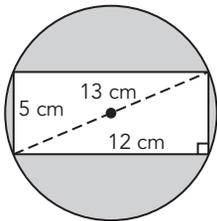
<b>Hours</b>	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
<b>Charge</b>				\$13.00				

## Stretch

A line is graphed through points at (4, 5) and (8, 10). What is the ordered pair of the unit rate?

## Review

Use the circle shown to answer each question. Use 3.14 for  $\pi$ . Round to the nearest hundredth.



1. Calculate the exact area of the circle.
2. Calculate the circumference of the circle.
3. Determine the total area of the shaded regions.

Use 3.14 for  $\pi$ . Round to the nearest hundredth.

4. Ben's dog, Tripp, is on a leash that is 6 feet long. What is the approximate circular area of Tripp's play area?

Determine each number.

5. 49 is 70% of what number?
6. 99 is 36% of what number?