

Rate Ready

Find the amount for one.

GRADE 6 • 6.NR.4.4

6.NR.4.4 "Describe the concept of rates and unit rate in the context of a ratio relationship."

NAME _____

DATE _____

RATES AND UNIT RATES

A rate compares two quantities with different units, such as pages and minutes. A unit rate tells how much of one quantity goes with one of the other quantity. Divide to find the amount for one.

WORKED EXAMPLE

A reader finishes 18 pages in 3 minutes. Find the unit rate.

1. Write the rate: 18 pages/3 minutes.
2. Divide 18 by 3.
3. $18 \div 3 = 6$.

Answer: 6 pages per minute

PRACTICE 6 problems

- 1** A bike travels 28 miles in 4 hours. Write the rate as a fraction, then find the unit rate.

ANSWER _____

- 2** A student reads 45 pages in 5 days. How many pages does the student read per day?

ANSWER _____

- 3** 8 pens cost \$16. What is the unit price?

ANSWER _____

- 4** 20 beads make 5 bracelets. What is the unit rate?

ANSWER _____

- 5** A faucet fills 35 liters in 7 minutes. What is the unit rate?

ANSWER _____

- 6** Plan A charges \$45 for 5 games. Plan B charges \$16 for 2 games. Which plan costs less per game?

ANSWER _____

APPLY IT Show your work

- 1** At a gaming club, Maya earns 40 points in 5 rounds. If she earns points at the same rate, how many points will she earn in 9 rounds?

WORK SPACE

ANSWER _____

- 2** A video app downloads 56 megabytes of a video in 8 seconds. At the same rate, how many megabytes will it download in 12 seconds?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Rink A charges \$15 for 2 hours of skating. Rink B charges \$28 for 4 hours of skating. Which rink has the lower cost per hour? Explain your reasoning.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A bike travels 28 miles in 4 hours. Write the rate as a fraction, then find the unit rate.	28 miles/4 hours; 7 miles per hour
2	A student reads 45 pages in 5 days. How many pages does the student read per day?	9 pages per day
3	8 pens cost \$16. What is the unit price?	\$2 per pen
4	20 beads make 5 bracelets. What is the unit rate?	4 beads per bracelet
5	A faucet fills 35 liters in 7 minutes. What is the unit rate?	5 liters per minute
6	Plan A charges \$45 for 5 games. Plan B charges \$16 for 2 games. Which plan costs less per game?	Plan B, \$8 per game. Plan A costs \$9 per game.

PART 2 • APPLY IT

1. **72 points** Find the unit rate: $40 / 5 = 8$ points per round. Then multiply 8 by 9 to get 72 points.
2. **84 megabytes** Find the unit rate: $56 / 8 = 7$ megabytes per second. Then multiply 7 by 12 to get 84 megabytes.

CHALLENGE

Rink B. Rink A costs \$7.50 per hour, and Rink B costs \$7 per hour, so Rink B costs \$0.50 less per hour.

Accept equivalent rate fractions when the units are correct. Accept \$7.5 or \$7.50 for the hourly cost in the challenge.