

Rate Quest

Divide to find a rate for one unit.

GRADE 6 • TEKS 6.4.D

6.4.D "give examples of rates as the comparison by division of two quantities having different attributes, including rates as quotients;"

NAME _____

DATE _____

FIND THE UNIT RATE

A rate compares two quantities with different attributes, such as miles and hours. To find a unit rate, divide the first quantity by the second quantity so the second quantity becomes 1. Include units in your answer.

WORKED EXAMPLE

A bike travels 42 miles in 6 hours.
What is its unit rate?

1. Write the rate: 42 miles / 6 hours.
2. Divide: $42 \div 6 = 7$.
3. Attach units: 7 miles per hour.

Answer: 7 miles per hour

PRACTICE 6 problems

- 1** A printer makes 36 flyers in 4 minutes. What is the unit rate in flyers per minute?

ANSWER _____

- 2** A \$24 game pass covers 3 months. What is the unit rate in dollars per month?

ANSWER _____

- 3** A student reads 30 pages in 2 days. What is the unit rate in pages per day?

ANSWER _____

- 4** Sixteen ounces of juice fill 4 cups. What is the unit rate in ounces per cup?

ANSWER _____

- 5** A soccer team scores 27 goals in 3 games. What is the unit rate in goals per game?

ANSWER _____

- 6** A 10-meter roll of paper makes 2 banners. What is the unit rate in meters per banner?

ANSWER _____

APPLY IT Show your work

- 1** At a gaming tournament, a team earns 256 points from 32 completed quests. If the team keeps the same points-per-quest rate, how many points will it earn from 5 more quests?

WORK SPACE

ANSWER _____

- 2** Mina uploads 54 photos over 3 days for the school news site. If she uploads at the same rate for 8 days, how many photos will she upload?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Channel A gets 45 likes in 3 hours. Channel B gets 64 likes in 4 hours. Which channel gains likes faster, and by how many more likes per hour? Explain using unit rates.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A printer makes 36 flyers in 4 minutes. What is the unit rate in flyers per minute?	9 flyers per minute
2	A \$24 game pass covers 3 months. What is the unit rate in dollars per month?	8 dollars per month
3	A student reads 30 pages in 2 days. What is the unit rate in pages per day?	15 pages per day
4	Sixteen ounces of juice fill 4 cups. What is the unit rate in ounces per cup?	4 ounces per cup
5	A soccer team scores 27 goals in 3 games. What is the unit rate in goals per game?	9 goals per game
6	A 10-meter roll of paper makes 2 banners. What is the unit rate in meters per banner?	5 meters per banner

PART 2 • APPLY IT

1. **40 points** Divide 256 by 32 to find 8 points per quest. Multiply 8 by 5 to get 40 points.
2. **144 photos** Divide 54 by 3 to find 18 photos per day. Multiply 18 by 8 to get 144 photos.

CHALLENGE

Channel B gains likes faster. Channel A gains 15 likes per hour, and Channel B gains 16 likes per hour, so Channel B gains 1 more like per hour.

Accept equivalent unit-rate notation, such as flyers/minute or flyers per minute. For the challenge, students should show both unit rates and state the difference.