

Rate Quest

Compare quantities, then find the amount for one.

GRADE 6 • MA.6.AR.3

MA.6.AR.3 "Understand ratio and unit rate concepts and use them to solve problems."

NAME _____

DATE _____

FIND THE UNIT RATE

A ratio compares two quantities. To find a unit rate, divide so you know the amount for 1 unit, and keep the units in your answer.

WORKED EXAMPLE

A game earns 28 points in 4 rounds.
What is the unit rate in points per round?

1. Write the rate: 28 points / 4 rounds.
2. Divide: $28 \div 4 = 7$.
3. Attach the units: 7 points per round.

Answer: 7 points per round

PRACTICE 6 problems

- 1** There are 9 blue tiles and 5 green tiles.
Write the ratio of blue tiles to green tiles.

ANSWER _____

- 2** A player completes 30 quests in 5 days.
What is the unit rate in quests per day?

ANSWER _____

- 3** Three notebook covers cost \$15. What is the cost per notebook cover?

ANSWER _____

- 4** A cyclist rides 40 miles in 8 hours. What is the unit rate in miles per hour?

ANSWER _____

- 5** One snack stand charges \$8 for 16 ounces of trail mix. Another charges \$9 for 18 ounces. Which stand has the lower unit price?

ANSWER _____

- 6** A recipe uses 2 cups of flour for 3 batches. At the same rate, how many cups of flour are needed for 12 batches?

ANSWER _____

APPLY IT Show your work

- 1** A video game update downloads 54 megabytes in 6 seconds. At this rate, how many megabytes will download in 9 seconds?

WORK SPACE

ANSWER _____

- 2** A school dance playlist gains 15 likes in 3 days. If it gains likes at the same rate, how many likes will it gain in 10 days?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A club mixes juice and sparkling water in a ratio of 5 cups juice to 3 cups sparkling water. The club needs 40 cups of the drink. How many cups of each ingredient are needed?

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	There are 9 blue tiles and 5 green tiles. Write the ratio of blue tiles to green tiles.	9:5
2	A player completes 30 quests in 5 days. What is the unit rate in quests per day?	6 quests per day
3	Three notebook covers cost \$15. What is the cost per notebook cover?	\$5 per notebook cover
4	A cyclist rides 40 miles in 8 hours. What is the unit rate in miles per hour?	5 miles per hour
5	One snack stand charges \$8 for 16 ounces of trail mix. Another charges \$9 for 18 ounces. Which stand has the lower unit price?	Neither, both cost \$1/2 per ounce
6	A recipe uses 2 cups of flour for 3 batches. At the same rate, how many cups of flour are needed for 12 batches?	8 cups

PART 2 • APPLY IT

1. **81 megabytes** Divide 54 by 6 to find 9 megabytes per second. Multiply 9 by 9 seconds to get 81 megabytes.
2. **50 likes** Divide 15 by 3 to find 5 likes per day. Multiply 5 by 10 days to get 50 likes.

CHALLENGE

25 cups of juice and 15 cups of sparkling water

Accept equivalent ratio notation for the first problem. For the snack stand problem, accept \$0.50 per ounce or 2 ounces per dollar if the student identifies the unit prices as equal.