LESSON MAKER PRO

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 / 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

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?

WORK SPACE AND ANSWER

ANSWER KEY # Rate Quest

GRADE 6 · MA.6.AR.3

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.