LESSON MAKER PRO

Rate Quest

Use equal ratios to solve everyday problems.

GRADE 6 · 6.RP.A.3

CCSS.Math.Content.6.RP.A.3 "Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations."

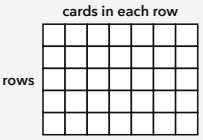
NAME _____ DATE _____

KEEP RATIOS EQUAL

In an equivalent ratio, both quantities are multiplied or divided by the same number. Find the amount for 1 unit, or use a table, diagram, or equation to scale both quantities.

WORKED EXAMPLE

The array shows equal rows of cards. If the pattern continues to 8 rows, how many cards are there?

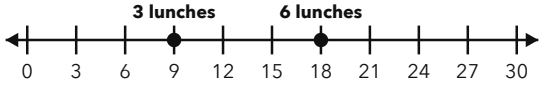


1. Count 5 rows of 7 cards: 5 × 7 = 35.
2. Find cards in 1 row: 35 / 5 = 7.
3. Multiply for 8 rows: 7 × 8 = 56.

Answer: 56 cards

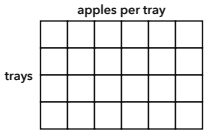
PRACTICE 4 problems

1 The labeled points show bottles needed for lunches. How many bottles are needed for 10 lunches at the same rate?



ANSWER _____

2 The array shows equal trays of apples. Each row is one tray. How many apples are on 9 trays at the same rate?



ANSWER _____

3 Six comic books cost $18. What is the cost of 14 comic books at the same price per book?

ANSWER _____

4 A smoothie recipe uses 16 ounces of yogurt for 12 servings. How many ounces are needed for 21 servings?

ANSWER _____

APPLY IT Show your work

1 The table shows points earned at a steady rate for completed quests. How many points are earned for 9 quests?

QUEST POINTS

Completed quests	Points
2	22
4	44
9	?

ANSWER _____

2 At the school store, 9 notebooks cost $27. Jordan has $42. How many notebooks can Jordan buy at the same price?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Team A assembles 18 kits in 12 minutes. Team B assembles 28 kits in 20 minutes. Which team is faster, and by how many kits per minute? Explain your reasoning.

WORK SPACE AND ANSWER

ANSWER KEY

Rate Quest

GRADE 6 · 6.RP.A.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	The labeled points show bottles needed for lunches. How many bottles are needed for 10 lunches at the same rate?	**30 bottles**
2	The array shows equal trays of apples. Each row is one tray. How many apples are on 9 trays at the same rate?	**54 apples**
3	Six comic books cost $18. What is the cost of 14 comic books at the same price per book?	**$42**
4	A smoothie recipe uses 16 ounces of yogurt for 12 servings. How many ounces are needed for 21 servings?	**28 ounces**

PART 2 · APPLY IT

1. **99 points** 22 points for 2 quests is 11 points per quest. Multiply 11 × 9 = 99.
2. **14 notebooks** Each notebook costs $27 / 9 = $3. Then $42 / $3 = 14.

CHALLENGE

Team A is faster. Its rate is 3/2 kit per minute, while Team B's rate is 7/5 kit per minute, so Team A is faster by 1/10 kit per minute.

Accept equivalent ratio methods, including unit rates, scaling, tables, diagrams, or equations. For the challenge, accept 1.5 and 1.4 kits per minute and a difference of 0.1 kit per minute.