LESSON MAKER PRO

Ratio Rate Race

Find missing values and compare rates.

GRADE 6 · 6.AT.A.3.a

6.AT.A.3.a "Generate, compare and find missing values of equivalent ratios and unit rates using multiple representations."

NAME _____ DATE _____

SAME RATE, NEW AMOUNT

In equivalent ratios, both amounts change by the same factor. Divide to find the amount for one unit, then multiply to find a missing value or compare rates.

WORKED EXAMPLE

The table shows a steady token rate. How many tokens are needed for 9 games?

Games	Tokens
7	35
9	?

1. 35 / 7 = 5 tokens per game.
2. 9 × 5 = 45 tokens.

Answer: 45 tokens

PRACTICE 4 problems

1 Find x: 2:6 = x:18.

ANSWER _____

2 8 notebooks cost $24. What do 10 notebooks cost?

ANSWER _____

3 A drink mix uses 16 cups of water for 2 cups of concentrate. How much water is needed for 6 cups of concentrate?

ANSWER _____

4 Which is faster: 16 pages in 2 minutes or 18 pages in 6 minutes?

ANSWER _____

APPLY IT Show your work

1 A game loads levels at a steady rate. Use the table to find the missing time.

GAME LOADING

Levels	Minutes
8	6
24	?

ANSWER _____

2 Kai earns 30 game points in 2 rounds. Ren earns 24 points in 6 rounds. Who earns more points per round, and by how many?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Pack A has 6 pins for $18. Pack B has 10 pins for $22. Which pack costs less per pin? What would 30 pins cost at that rate?

WORK SPACE AND ANSWER

ANSWER KEY

Ratio Rate Race

GRADE 6 · 6.AT.A.3.a

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find x: 2:6 = x:18.	**x = 6**
2	8 notebooks cost $24. What do 10 notebooks cost?	**$30**
3	A drink mix uses 16 cups of water for 2 cups of concentrate. How much water is needed for 6 cups of concentrate?	**48 cups**
4	Which is faster: 16 pages in 2 minutes or 18 pages in 6 minutes?	**16 pages in 2 minutes**

PART 2 · APPLY IT

1. **18 minutes** 24 levels is three times 8 levels, so the time is 6 × 3 = 18 minutes.
2. **Kai, by 11 points per round** Kai earns 15 points per round, and Ren earns 4. The difference is 11.

CHALLENGE

Pack B; $66

For comparisons, accept either a unit-rate calculation or an equivalent-ratio method that supports the correct answer.