LESSON MAKER PRO

Rates in Action

Use tables, rates, and graphs to solve problems.

GRADE 6 · 6.AT.A.3

6.AT.A.3 "Use ratio and rate reasoning to solve problems in context by reasoning about tables of equivalent ratios, tape diagrams, double number lines, or the Coordinate Plane. Generate..."

NAME _____ DATE _____

FIND THE UNIT RATE

Equivalent ratios keep the same amount for each 1 unit. Divide a known pair to find that amount, then multiply to find a missing value. On a graph, the pairs lie on a line through (0, 0).

WORKED EXAMPLE

Use the table. What is the cost of 7 pencils?

PENCIL COSTS

Pencils	Cost ($)
4	12
7	x

1. 12 / 4 = 3 dollars per pencil
2. 7 × 3 = 21 dollars

Answer: $21

PRACTICE 4 problems

1 Six stickers cost $18. What do 11 stickers cost?

ANSWER _____

2 A bike travels 10 miles in 50 minutes. How far does it travel in 15 minutes at the same rate?

ANSWER _____

3 Game A costs $15 for 5 players. Game B costs $32 for 8 players. Which costs less per player?

ANSWER _____

4 A runner covers 180 meters in 3 minutes. What is the speed in meters per second?

ANSWER _____

APPLY IT Show your work

1 A school fair puts the same number of glow sticks in each prize bag. Use the table to find how many glow sticks go in 11 bags.

PRIZE BAGS

Bags	Glow sticks
3	15
6	30
11	x

ANSWER _____

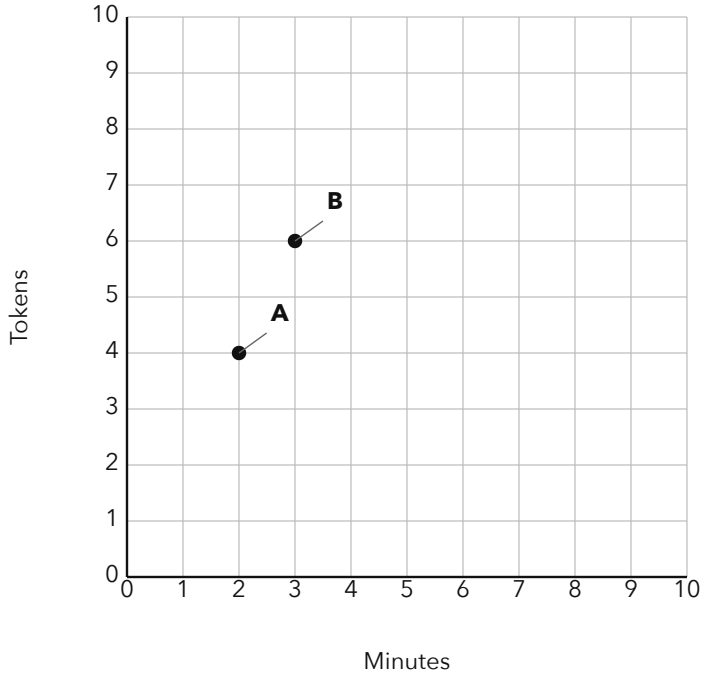
2 A playlist has 3 songs totaling 9 minutes. If each song is the same length, how many seconds do 14 songs take?

WORK SPACE

ANSWER _____

CHALLENGE One step up

The graph shows tokens earned during a game. Plot the pair for 4 minutes. Then find how many minutes it takes to earn 18 tokens at the same rate.



WORK SPACE AND ANSWER

ANSWER KEY

Rates in Action

GRADE 6 · 6.AT.A.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Six stickers cost $18. What do 11 stickers cost?	**$33**
2	A bike travels 10 miles in 50 minutes. How far does it travel in 15 minutes at the same rate?	**3 miles**
3	Game A costs $15 for 5 players. Game B costs $32 for 8 players. Which costs less per player?	**Game A**
4	A runner covers 180 meters in 3 minutes. What is the speed in meters per second?	**1 meter per second**

PART 2 · APPLY IT

1. **55 glow sticks** Each bag gets 15 / 3 = 5 glow sticks. For 11 bags, 11 × 5 = 55.
2. **2,520 seconds** Each song takes 9 / 3 = 3 minutes. Fourteen songs take 42 minutes, or 42 × 60 = 2,520 seconds.

CHALLENGE

Plot (4, 8); 9 minutes

For the comparison, Game A costs $3 per player and Game B costs $4 per player. In the challenge, accept an unlabeled point at (4, 8).