

Rate Match Mission

Use unit rates to solve proportional situations.

GRADE 7 • 7.RP.A

CCSS.Math.Content.7.RP.A "Analyze proportional relationships and use them to solve real-world and mathematical problems."

NAME _____

DATE _____

FIND THE UNIT RATE

In a proportional relationship, the ratio between two quantities stays the same. Find the amount for 1 unit by dividing, then multiply by the number of units you need.

WORKED EXAMPLE

11 pencils cost \$33. How much do 4 pencils cost at the same rate?

1. $\$33 / 11 = \3 per pencil.

2. $4 \text{ pencils} \times \$3 \text{ per pencil} = \$12$.

Answer: \$12

PRACTICE 6 problems

- 1** 5 game tokens cost \$35. What is the cost of 1 game token?

ANSWER _____

- 2** A bike travels 18 miles in 2 hours at a constant speed. How far does it travel in 6 hours?

ANSWER _____

- 3** The equation $y = 9x$ shows a proportional relationship. Find y when $x = 7$.

ANSWER _____

- 4** A plant grows 16 centimeters in 8 days at a constant rate. How many centimeters does it grow in 9 days?

ANSWER _____

- 5** 15 ounces of trail mix cost \$45. How much do 2 ounces cost?

ANSWER _____

- 6** Solve the proportion $x/14 = 5/7$.

ANSWER _____

APPLY IT Show your work

- 1** A gaming club charges \$56 for 7 months of membership. If the monthly cost stays the same, what will 9 months of membership cost?

WORK SPACE

ANSWER _____

- 2** A student is ordering custom stickers for a club. A print shop charges \$21 for 14 stickers at a constant rate. How many stickers can the club order for \$39?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

At a school store, 6 notebooks cost \$15. A larger pack has 14 notebooks. If prices are proportional, would 14 notebooks cost more or less than \$34? Explain by finding the cost.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	5 game tokens cost \$35. What is the cost of 1 game token?	\$7
2	A bike travels 18 miles in 2 hours at a constant speed. How far does it travel in 6 hours?	54 miles
3	The equation $y = 9x$ shows a proportional relationship. Find y when $x = 7$.	63
4	A plant grows 16 centimeters in 8 days at a constant rate. How many centimeters does it grow in 9 days?	18 centimeters
5	15 ounces of trail mix cost \$45. How much do 2 ounces cost?	\$6
6	Solve the proportion $x/14 = 5/7$.	$x = 10$

PART 2 • APPLY IT

1. **\$72** Divide \$56 by 7 to find a monthly cost of \$8. Multiply \$8 by 9.
2. **26 stickers** Scale \$21 to \$39 by multiplying by $13/7$. Multiply 14 stickers by $13/7$ to get 26 stickers.

CHALLENGE

More than \$34. Each notebook costs \$2.50, so 14 notebooks cost \$35.

Accept equivalent proportional methods, including unit rates, tables, or cross multiplication. Require units for money, distance, and item-count answers.