

Rate Ready

Use unit rates and proportions to solve real situations.

GRADE 6 • 6.NR.4

6.NR.4 "Solve a variety of contextual problems involving ratios, unit rates, equivalent ratios, percentages, and conversions within measurement systems using proportional reasoning."

NAME _____

DATE _____

FIND THE UNIT RATE

A unit rate tells the amount for 1 item or 1 unit. To solve a proportional situation, divide to find the amount for 1, then multiply for the amount you need.

WORKED EXAMPLE

Seven concert tickets cost \$21. How much do 15 tickets cost at the same rate?

1. Find the cost of 1 ticket: $\$21 / 7 = \3 .
2. Multiply by the number of tickets: $15 \times \$3 = \45 .

Answer: \$45

PRACTICE 6 problems

- 1** Complete the equivalent ratio: $2:5 = 8: \underline{\hspace{1cm}}$.

ANSWER _____

- 2** A student reads 36 pages in 4 days at a steady rate. How many pages does the student read per day?

ANSWER _____

- 3** What is 30% of 90?

ANSWER _____

- 4** Convert 2 meters to centimeters.

ANSWER _____

- 5** Five pounds of apples cost \$10. How much do 8 pounds cost at the same rate?

ANSWER _____

- 6** Eighteen out of 60 students chose art club. What percent chose art club?

ANSWER _____

APPLY IT Show your work

- 1** An esports club buys 12 controller grips for \$18. At the same rate, how much will 20 controller grips cost?

WORK SPACE

ANSWER _____

- 2** A runner fills 4 water bottles. Each bottle holds 1.5 liters. How many milliliters of water do the bottles hold altogether?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A pair of headphones costs \$56 and is on sale for 25% off. You also buy an \$8 carrying case. What is the total cost after the discount and the case?

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Complete the equivalent ratio: $2:5 = 8: \underline{\hspace{1cm}}$.	20
2	A student reads 36 pages in 4 days at a steady rate. How many pages does the student read per day?	9 pages per day
3	What is 30% of 90?	27
4	Convert 2 meters to centimeters.	200 centimeters
5	Five pounds of apples cost \$10. How much do 8 pounds cost at the same rate?	\$16
6	Eighteen out of 60 students chose art club. What percent chose art club?	30%

PART 2 • APPLY IT

1. **\$30** Divide \$18 by 12 to find that each grip costs \$1.50. Multiply \$1.50 by 20 grips.
2. **6,000 milliliters** Multiply 4 by 1.5 to get 6 liters. Convert 6 liters to 6,000 milliliters.

CHALLENGE

\$50

Accept equivalent money forms, such as \$30.00, and correct measurement abbreviations. For the challenge, students should find a \$14 discount, then add the \$8 case to the \$42 sale price.