LESSON MAKER PRO

# Rates in Action

*Find the amount for one unit, then use it.*

**GRADE 6 · 6.AT.A.2**

**6.AT.A.2** "Represent and use unit rates, written as fractions (a/b, b ≠ 0) with whole number numerators and denominators, in context. Use unit rate language in the context of a ratio relationship (e.g...."

NAME _____ DATE _____

## FIND A UNIT RATE

A unit rate tells how much of one quantity goes with 1 unit of another quantity. Divide the first amount by the second amount, write the division as a fraction, and name the units.

## WORKED EXAMPLE

A costume club uses 11 meters of ribbon to make 6 equal-length sashes. How many meters of ribbon does each sash use?

1. Divide the meters of ribbon by the number of sashes: 11 ÷ 6.
2. Write the division as a fraction: 11/6.
3. Name the units: 11/6 meters per sash.

**Answer: 11/6 meters per sash**

## PRACTICE 6 problems

**1** You read 8 pages in 4 minutes. Write the unit rate as a fraction of pages per minute.

**ANSWER** _____

**2** A bag holds 10 ounces of granola and costs $8. Write the unit rate as a fraction of ounces per dollar.

**ANSWER** _____

**3** A hiker travels 12 miles in 5 hours. Write the unit rate as a fraction of miles per hour.

**ANSWER** _____

**4** Four markers cost $9. Write the unit rate as a fraction of dollars per marker.

**ANSWER** _____

**5** An art club uses 16 ounces of paint for 10 signs of equal size. Write the unit rate as a fraction of ounces per sign.

**ANSWER** _____

**6** A playlist plays 18 songs in 9 minutes at a steady rate. How many songs play per minute? How many songs play in 20 minutes?

**ANSWER** _____

## APPLY IT Show your work

**1** Eight arcade tickets cost $24. At the same price per ticket, how much do 14 tickets cost? Find the price per ticket first.

WORK SPACE

**ANSWER** _____

**2** A cyclist rides 28 miles in 4 hours at a steady speed. At that speed, how far will the cyclist ride in 9 hours? Find the speed first.

WORK SPACE

**ANSWER** _____

## CHALLENGE One step up

Plan A gives 18 GB of data for $12. Plan B gives 20 GB for $15. Write each plan's unit rate as a fraction of GB per dollar. Which plan gives more data per dollar, and how much more?

WORK SPACE AND ANSWER

**ANSWER KEY**

# Rates in Action

**GRADE 6 · 6.AT.A.2**

## PART 1 · PRACTICE

| # | PROBLEM | ANSWER |
|---|---|---|
| 1 | You read 8 pages in 4 minutes. Write the unit rate as a fraction of pages per minute. | **8/4 pages per minute** |
| 2 | A bag holds 10 ounces of granola and costs $8. Write the unit rate as a fraction of ounces per dollar. | **10/8 ounces per dollar** |
| 3 | A hiker travels 12 miles in 5 hours. Write the unit rate as a fraction of miles per hour. | **12/5 miles per hour** |
| 4 | Four markers cost $9. Write the unit rate as a fraction of dollars per marker. | **9/4 dollars per marker** |
| 5 | An art club uses 16 ounces of paint for 10 signs of equal size. Write the unit rate as a fraction of ounces per sign. | **16/10 ounces per sign** |
| 6 | A playlist plays 18 songs in 9 minutes at a steady rate. How many songs play per minute? How many songs play in 20 minutes? | **18/9, or 2, songs per minute; 40 songs in 20 minutes** |

## PART 2 · APPLY IT

1. **$3 per ticket; $42 for 14 tickets** Divide $24 by 8 tickets to get $3 per ticket. Multiply $3 by 14 to get $42.
2. **7 miles per hour; 63 miles in 9 hours** Divide 28 miles by 4 hours to get 7 miles per hour. Multiply 7 by 9 to get 63 miles.

## CHALLENGE

**Plan A: 18/12 = 3/2 GB per dollar. Plan B: 20/15 = 4/3 GB per dollar. Plan A gives 1/6 GB more per dollar.**

Accept equivalent fractions or whole numbers for unit rates. Check that students name the units in the requested order, especially ounces per dollar and dollars per marker.