

Ratios, Rates & Percents

Fill in each part when its number appears on the slide.

PART 1 · TARGET

I can use ratios, unit rates, and percents to solve real-world problems.

PART 2 · WARM-UP

1. There are 12 boys and 15 girls in a class. Write the ratio of boys to girls.
Key: 12:15, or 4:5.
2. Which is the better buy: 3 pencils for \$1.50 or 5 pencils for \$2.00? Show work.
Key: 5 for \$2.00 (\$0.40 each vs. \$0.50 each).
3. What is 10% of 80?
Key: 8.

PART 3 · PREDICTION

A 12-pack of juice costs \$6. A 20-pack costs \$9. Which is the better deal?

Circle one: ☐ 12-pack ☐ 20-pack ☐ Same price per juice

PART 4 · VOCABULARY

Word	Meaning
Ratio	A comparison of two quantities (3 to 2, 3:2, 3/2).
Rate	A ratio comparing quantities with different units (miles per hour).
Unit rate	A rate per 1 unit (\$2 per pound).
Equivalent ratios	Ratios that make the same comparison ($2:3 = 4:6$).

PART 5 · RATIOS COMPARE

A RATIO compares two quantities. ORDER matters.

Check: What is the ratio of yogurt to strawberries?

Circle one: (A) 2:5 (B) 3:5 (C) 2:3 (D) 3:2

Key: (C) 2:3. Yogurt comes first: 2:3.

PART 6 · EQUIVALENT RATIOS

To make an EQUIVALENT RATIO, multiply or divide BOTH parts by the same number.

Check: Strawberries 12 cups: how many cups of yogurt?

Answer: _____

Key: 8. $12 \div 3 = 4$ groups; $4 \times 2 = 8$.

PART 7 • UNIT RATES

A UNIT RATE is the amount for ONE. To find it, divide.

Check: 4 smoothies cost \$18. Price per smoothie?

Answer: _____ dollars

Key: 4.50 dollars. $\$18 \div 4 = \$4.50$.

PART 8 • PERCENTS

Percent means per HUNDRED. 10% of a number is that number divided by 10.

Check: What is 25% of 80?

Answer: _____

Key: 20. $\frac{1}{4}$ of 80 = 20.

PART 9 • WORKED EXAMPLE

1. Problem: 12 for \$6 or 20 for \$9?
2. Step 1: Unit rate for the 12-pack: $\$6 \div 12 = \$0.50$ per juice.
3. Step 2: Unit rate for the 20-pack: $\$9 \div 20 = \$0.45$ per juice.
4. Step 3: Compare: $\$0.45 < \$0.50$.
5. Answer: the 20-pack is the better deal, by 5 cents a juice.

PART 10 • WE DO

A recipe uses 2 cups of rice for 5 people. How much rice for 20 people?

Answer: 8 cups

PART 11 • YOU DO

A shirt costs \$40 and is 15% off. How much is the discount?

Answer: _____ dollars

Key: 6 dollars. 10% = \$4, 5% = \$2, so 15% = \$6.

PART 12 • WORK TIME: HOOSIER ROAD TRIP

Write each code piece as you earn it: Stop 1: M Stop 2: I Stop 3: L Stop 4: E Stop 5: S

Final code: MILES

PART 13 • WRAP-UP

Was your prediction in Part 3 right? One thing I learned today:

Key: 8.