

Ratios, Unit Rates & Proportional Reasoning



Name: _____ Date: _____

Part A: Solve each ratio and unit rate problem below. Select the best answer.

1. A hybrid car travels 288 miles on 8 gallons of fuel. What is the unit rate of distance per gallon of fuel?
A. 32 miles per gallon
B. 36 miles per gallon
C. 42 miles per gallon
D. 28 miles per gallon
2. Brand X sells a 24-ounce box of cereal for \$4.80. Brand Y sells a 32-ounce box of the same cereal for \$5.76. Which brand offers the lower unit price per ounce, and what is its rate?
A. Brand X at \$0.20 per ounce
B. Brand Y at \$0.18 per ounce
C. Brand X at \$0.15 per ounce
D. Both brands cost the exact same per ounce
3. The ratio of red marbles to blue marbles in a jar is 3 : 5. If the jar contains 45 blue marbles, how many total marbles (red and blue combined) are in the jar?
A. 27 marbles
B. 72 marbles
C. 60 marbles
D. 80 marbles

Part B: Unit Conversion & Rate Application. Complete each proportional equation with the correct numerical value.

Word bank: 150, 2.5, 45, 12, 75

1. At a constant typing speed of 60 words per minute, Maya can type _____ words in 2.5 minutes.
2. A recipe calls for 3 cups of flour for every 2 cups of sugar. To make a larger batch using 30 cups of flour, the baker needs _____ cups of sugar (scaling multiplier is 10).
3. If 4 tickets to a science museum cost \$60, the unit price per ticket is _____ dollars less than \$27, equal to exactly \$15 per admission.
4. A 5-kilometer fun run is equal to approximately 3.1 miles. Running at 6 mph, finishing a 15-mile distance takes _____ hours.