

Unit 3: Unit Rates and Percentages

ADVANCED

Name: _____ Date: _____

Show your work and give each answer as an exact number, fraction, ratio, or percent. Round money to the nearest cent unless told otherwise.

1. A printer produces 385 pages in 7 minutes at a constant rate. At the same rate, how many pages does it print in 22 minutes?

Answer: _____

2. 12 identical water bottles cost \$27.00. At the same unit price, how much do 20 bottles cost, in dollars?

Answer: _____

3. A car travels 297 miles on 13.5 gallons of gas. What is its fuel economy in miles per gallon?

Answer: _____

4. A recipe uses flour and sugar in the ratio 9:4. If a baker uses 63 cups of flour, how many cups of sugar are needed?

Answer: _____

5. A jacket originally priced at \$84 is discounted by 35%. What is the sale price in dollars?

Answer: _____

6. A store marks up a backpack that costs \$48 by 25%, then a customer pays 8% sales tax on the marked-up price. What is the final price the customer pays, in dollars?

Answer: _____

7. 36 is what percent of 240?

Answer: _____

8. After a 12% raise, an employee's weekly pay is \$658. What was the weekly pay before the raise, in dollars?

Answer: _____

9. Machine A fills 480 cans in 16 minutes; Machine B fills 693 cans in 21 minutes. How many more cans per minute does the faster machine fill?

Answer: _____

10. A 750 mL bottle of juice contains 18 grams of sugar. At the same concentration, how many grams of sugar are in a 1.25 L bottle?

Answer: _____

11. Store X sells 5 notebooks for \$6.25; Store Y sells 8 notebooks for \$9.60. How much cheaper per notebook is the better deal, in dollars?

Answer: _____