

Unit 3: Unit Rates and Percentages

ADVANCED • SET 2

Name: _____ Date: _____

Solve each problem and give the exact answer. Show your work, but write only the final short answer on the line provided.

1. Printer A prints 340 pages in 8 minutes. Printer B prints 465 pages in 12 minutes. How many more pages per minute does the faster printer print than the slower one?

Answer: _____

3. A car travels 252 miles on 9 gallons of gas. At the same rate, how many gallons are needed to travel 420 miles?

Answer: _____

5. After a 15% price increase, an item now costs \$92. What was the original price in dollars?

Answer: _____

7. Two quantities are in the ratio 5:8. If the ratio is scaled so that the smaller term equals 35, what is the larger term?

Answer: _____

9. A worker earns \$126 for 7.5 hours of work. At the same rate, how much does the worker earn for 20 hours?

Answer: _____

2. A recipe uses $\frac{3}{4}$ cup of sugar for every $\frac{2}{3}$ cup of flour. As a unit rate, how many cups of sugar are used per 1 cup of flour? Give your answer as a fraction.

Answer: _____

4. 45 is what percent of 120?

Answer: _____

6. A shirt originally priced at \$48 is marked 25% off. Then 8% sales tax is added to the discounted price. What is the final price in dollars?

Answer: _____

8. 18% of a number is 63. What is the number?

Answer: _____

10. A solution is 40% acid by volume and has a total volume of 250 mL. How many milliliters of the solution are acid?

Answer: _____

11. Apples cost \$7.50 for 3 pounds. Oranges cost \$11.00 for 5 pounds. In dollars, how much cheaper per pound are the oranges than the apples?

Answer: _____

12. A town's population grew from 24,000 to 27,600 in one year. What was the percent increase?

Answer: _____