

Unit 9: Putting It All Together

ADVANCED • SET 2

Name: _____ Date: _____

Show all your work. Give each answer as an exact value (fraction, decimal, integer, ratio, or coordinate pair).

1. A recipe uses flour and sugar in the ratio 5:3. If a baker uses $12\frac{3}{4}$ cups of flour, how many cups of sugar are needed? Give your answer as a fraction or mixed number.

Answer: _____

3. Solve for x: $-\frac{3}{4}(x - 8) = 15$. Give your answer as a fraction or integer.

Answer: _____

5. The temperature at 6 a.m. was -8.5°C . It rose 2.75°C per hour for 4 hours. What was the temperature at 10 a.m., in $^{\circ}\text{C}$?

Answer: _____

7. Solve for x: $2.5x - 7.5 = 0.5x + 12.5$. Give your answer as a decimal or integer.

Answer: _____

9. Evaluate: $(-\frac{2}{3}) \times (\frac{9}{8}) - (-\frac{1}{4}) \div (\frac{2}{3})$. Give your answer as a fraction.

Answer: _____

2. A map has a scale where $\frac{3}{4}$ inch represents 20 miles. Two cities are $5\frac{1}{4}$ inches apart on the map. How many miles apart are the actual cities?

Answer: _____

4. A shirt originally priced at \$48 is marked up 25%, then that new price is discounted 30%. What is the final price in dollars?

Answer: _____

6. A car travels 187.5 miles using $6\frac{1}{4}$ gallons of gas. At this rate, how many miles can it travel on 14 gallons?

Answer: _____

8. A number is decreased by 15% to give 68. What was the original number? Give your answer as a decimal or integer.

Answer: _____

10. A savings account earns 6% simple annual interest. If \$250 in interest is earned in 2 years, what was the principal, in dollars? Round to the nearest cent.

Answer: _____

11. Solve the proportion for x: $(2x + 3)/5 = (3x - 1)/6$.
Give your answer as a fraction or integer.

Answer: _____