

Unit 9: Putting It All Together

ADVANCED

Name: _____ Date: _____

Solve each problem and write your exact answer on the line. Show your work on scratch paper.

1. A bread recipe uses flour and sugar in the ratio 5:3. A baker measures out $12\frac{1}{2}$ cups of sugar and keeps the same ratio. How many cups of flour does the baker use? Give your answer as a fraction or mixed number.

Answer: _____

3. Evaluate the expression $3x^2 - 4xy$ when $x = -2$ and $y = 5$.

Answer: _____

5. A jacket costs \$80. The store first marks the price up by 25%, then puts the new price on sale for 20% off. What is the final price in dollars?

Answer: _____

7. A prize of \$3600 is split among three winners in the ratio 2:3:7. How many dollars does the winner with the largest share receive?

Answer: _____

9. Find the mean (average) of these four numbers: $\frac{3}{4}$, $\frac{5}{8}$, $\frac{1}{2}$, $\frac{7}{8}$. Give your answer as a fraction in lowest terms.

Answer: _____

2. Store A sells nuts at $\frac{3}{4}$ pound for \$2.40. Store B sells the same nuts at $\frac{2}{5}$ pound for \$1.40. What is the price per pound (in dollars) at the cheaper store?

Answer: _____

4. Compute $(\frac{2}{3} + \frac{5}{6}) \div (\frac{3}{4} - \frac{1}{8})$. Give your answer as a fraction or mixed number in lowest terms.

Answer: _____

6. On a number line, what is the distance between the points $-3\frac{1}{4}$ and $2\frac{3}{5}$? Give your answer as a fraction or mixed number.

Answer: _____

8. Simplify and evaluate $4(2a - 3) + 5a - 2(a + 1)$ when $a = 6$.

Answer: _____

10. Point A is at $(-4, 3)$. It is first reflected across the x-axis, then translated 6 units right and 2 units down. What are the coordinates of the final image? Give your answer as (x, y) .

Answer: _____

11. A car travels 210 miles on $\frac{3}{4}$ of a tank of gas. At this rate, how many miles can it travel on a full tank?

Answer: _____

12. Evaluate $2^3 - 12 \div (-4) + (-5)(2)$.

Answer: _____