Unit 9: Putting It All Together

ADVANCED · SET 2

Name: _____ Date: _____

Solve each problem and write your exact answer on the line. Show your work on scratch paper; give only the final value.

1. A recipe uses flour and sugar in the ratio 5 : 3. A baker uses 12 1/4 cups of flour. How many cups of sugar are needed? Give your answer as a fraction or mixed number.

Answer: _____

2. Evaluate the expression 3x^2 - 2y when x = 4 and y = -5. What is the value?

Answer: _____

3. A car travels 234 miles on 7.8 gallons of gas. At this rate, how many miles does it travel on 12.5 gallons?

Answer: _____

4. A shirt originally costs $48. It is marked down 25%, then an additional 15% is taken off the sale price at checkout. What is the final price in dollars?

Answer: _____

5. On a number line, point A is at -7 3/4 and point B is at 5 1/2. What is the distance between A and B? Give your answer as a mixed number.

Answer: _____

6. The ratio of boys to girls in a club is 4 : 7. If there are 33 members total, how many more girls than boys are there?

Answer: _____

7. Combine like terms and evaluate: 5(2a + 3) - 4(a - 2) when a = -3. What is the value?

Answer: _____

8. A tank holds 3/8 of its capacity, which is 4 1/2 gallons. What is the full capacity of the tank in gallons?

Answer: _____

9. A number decreased by 40% equals 96. Then that number is used as the base. What was the original number?

Answer: _____

10. Order these from least to greatest and state the middle value: -2.35, -2 1/4, -2.4, -9/4. Give the middle (median of the four… use the 2nd-smallest) value as a decimal.

Answer: _____

11. A rectangle has area 5/6 square meter and width 2/9 meter. What is its length in meters? Give your answer as a mixed number.

Answer: _____