Chapter 1.3 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Applications Worksheet

1. Two brothers are saving money to buy tickets to a concert. Their combined savings is $55. One brother has $15 more than the other. How much has each saved?

Equation\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. The sides of a triangle are in the ratio 5 : 12 : 13.What is the length of each side of the triangle if the perimeter of the triangle is 15 in.?

Equation\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Find three consecutive numbers whose sum is 126.

Equation\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. The length of a rectangle is 5 cm greater than its width. The perimeter is 58 cm. Find the dimensions of the rectangle.

Equation\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. You want to join a Zumba Dance Studio and the fee is $24.99 a month plus $3.99 per class. If you have budgeted $120 per month for Zumba classes, how many classes will you be able to take per month?

Equation\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. The measure of a supplement of an angle is 25 degrees more than 7 times the measure of the angle. To the nearest tenth of a degree, what is the measure of the smaller angle?

Equation\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. The math booster club is selling tickets to the first varsity football game. The price of an adult ticket is $6 and student tickets are $4. The club’s goal is to sell at least $800 worth of tickets to buy shirts for the math department. Parents have purchased 45 adult tickets.

a. Write an equation or inequality to represent the club’s total revenue from adult and student tickets.

b. Find the minimum number of student tickets that must be sold if the booster club wants to reach their goal.

8. Advanced algebra students just completed a multiple-choice test where each problem in Section A was worth 2 points and each problem in Section B were worth 5 points. Javier knows he earned at most 90 points on the test. He got 22 out of 25 problems correct in Section A.

a. Write an equation or inequality to represent the total number of points.

b. What is the most number of points he scored in Section B to get a score of 90 on the test?