

Name \_\_\_\_\_ Date \_\_\_\_\_ Homework # \_\_\_\_\_

Review for Test 1 Quarter 2

1. Given the universe is the set of whole numbers less than 10, set  $A = \{0, 2, 4, 6, 8\}$  and set  $B = \{2, 3, 5, 7\}$  Find the following:

$$A \cup B$$

$$A \cap B$$

Find the complement of set A

Find the complement of set B

2. Solve each equation for x.

$$z = ax - b$$

$$bx - 2 = K$$

$$2ax - 5x = 2$$

3. For each expression determine the values for x that make the expression undefined.

$$\frac{4}{x^2 - 25}$$

$$\frac{x-5}{x+7}$$

$$\frac{3}{3x-6}$$

4. Solve each system of equations.

$$y = 3x$$

$$5x - y = -4$$

$$x + 2y = -7$$

$$x - 2y = -3$$

5. Determine the slope of the line that passes through each set of points.

(8, 8) and (12, 6)

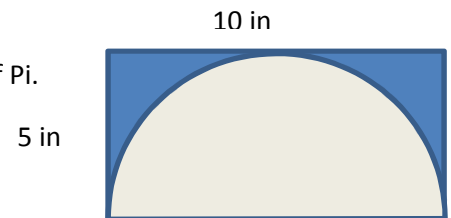
(2, -3) and (-4, -3)

6. What is the exact length of the diagonal of a square, with sides that measure 5 inches long?

7. Write the equation of the line that is parallel to the graph of the equation  $y = -2x + 5$  and passes through the point  $(-2, 3)$ .

8. Write the equation of the line that is perpendicular to the graph of the equation  $y = -2x + 5$  and passes through the point  $(4, 4)$ .

9. Determine the area of the shaded region. Express your answer in terms of Pi.



10. In a collection of coins there are 7 less dimes than there are quarters. If the value of the collection is \$3.85, then how many quarters are there?

11. Carrie bought new carpet for her living room. She calculated the area of the living room to be 174.2 square feet. The actual area was 149.6 square feet. What is the relative error of the area to the nearest thousandth of a square foot?

12. Name the type of function shown in each graph.

