

Summer Packet for Students entering Geometry 328

Name: \_\_\_\_\_

Geometry 328

This packet contains topics that you have learned in previous courses that are most important to know for this class. Please read the directions and **show your work** for each problem. Then write your answers on the answer sheet. Due by Monday, August 28, 2017.

I. Use Order of Operations to simplify each expression.

1.  $16 - 2(4 + 1) + 5$

2.  $(2 + 3)^2 + (6 - (-3))^2$

II. Write the answer:

1.  $(-3)(-4) =$  \_\_\_\_\_

2.  $5 - 18 =$  \_\_\_\_\_

3.  $\frac{3}{-9} =$  \_\_\_\_\_

4.  $-24 + 17 =$  \_\_\_\_\_

5.  $-2(5x - 8) =$  \_\_\_\_\_

6.  $-8 - (-1) =$  \_\_\_\_\_

III. Solve the equation for x. Remember to show your work!

1.  $6x + 30 = 18$

2.  $2x + 5 = 6x - 23$

3.  $3(x - 12) = -24$

4.  $5 + \frac{2}{3}(x + 1) = 7$

IV. Factor

1.  $6x + 10$

2.  $x^2 - 9$

3.  $x^2 - 11x + 30$

4.  $x^2 + 4x - 21$

V. Simplify the radical. Write the answer as a reduce radical.

1.  $\sqrt{36}$

2.  $\sqrt{100}$

3.  $3\sqrt{25}$

4.  $2\sqrt{16}$

5.  $\sqrt{8}$

6.  $\sqrt{27}$

VI. Distance and Midpoint

1. Use the distance formula to find the distance between the points: A (1, 10) and B (9, 4)

$$D = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

2. Use the midpoint formula to find the coordinate of the midpoint between the points:  
A (1, 10) and B (9, 4)

$$M = \left( \frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

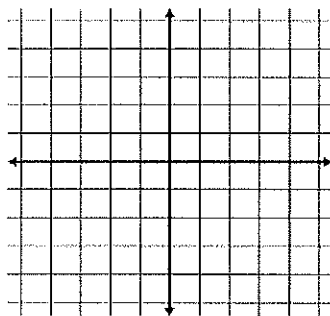
VII. Plot and label (using the letter) each ordered pair on the graph:

A (1, -3)

B (-2, 5)

C (0, 4)

D (-3, 0)



VIII Find the slope and y-intercept:

1.  $2y = 6x - 2$

2.  $3x + y = 1$

Slope = \_\_\_\_\_ y-intercept = \_\_\_\_\_

slope = \_\_\_\_\_ y-intercept = \_\_\_\_\_

Name: \_\_\_\_\_

I Use Order of operations to simplify each expression

1. \_\_\_\_\_

2. \_\_\_\_\_

II. Write the answer

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

III. Solve the equation for x

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

IV. Factor

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

V. Simplify the radical

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

VI. Distance and midpoint

1. \_\_\_\_\_

2. \_\_\_\_\_

VII. Plot and Label – DO THE WORK ON THE GRAPH

VIII. Find the slope and y-intercept

1. Slope = \_\_\_\_\_ y-intercept = \_\_\_\_\_

2. Slope = \_\_\_\_\_ y-intercept = \_\_\_\_\_