

Summer Packet for Students entering Geometry 328

Due: Monday, August 25, 2025

Name: _____

This packet contains topics 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.

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. $(-3)(-4) = \underline{\hspace{2cm}}$

2. $5 - 18 = \underline{\hspace{2cm}}$

3. $-\frac{3}{9} = \underline{\hspace{2cm}}$

4. $-24 + 17 = \underline{\hspace{2cm}}$

5. $-2(5x - 8) = \underline{\hspace{2cm}}$

6. $-8 - (-1) = \underline{\hspace{2cm}}$

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)

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

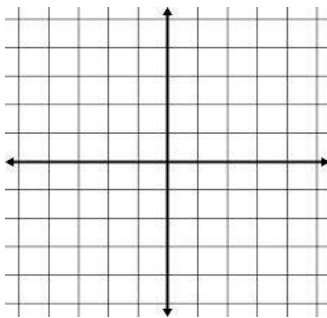
VII. Plot and label (using the letter) each ordered pair on the graph:

A (1, -3)

B (-2, 5)

C (0, 4)

D (-3, 0)



VIII. Find the slope and y-intercept:

1. $2y = 6x - 2$

slope = _____ y-intercept = _____

2. $3x + y = 1$

slope = _____ y-intercept = _____

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Answer Sheet Geometry 328

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 = _____