Summer Packet for Students entering Geometry CP 322   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 <u>Order of Operations</u> 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. $-\dfrac{3}{9} =$ _____

  4. $-24 + 17 =$ _____

  5. $-2(5x - 8) =$ _____

  6. $-8 - (-1) =$ _____

III. <u>Solve the equation for x</u>. Remember to show your work!

  1. $6x + 30 = 18$

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

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

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

IV. <u>Factor</u>

    1. $6x + 10$ 2. $x^2 - 9$

    3. $x^2 - 10x + 21$ 4. $6x^2 + 11x - 10$

V. Factor and solve each quadratic equation. Remember to show your work!

    1. $x^2 + 6x + 8 = 0$ 2. $x^2 - 5x = 24$

VI. Simplify the radical. <u>Write the answer as a reduce radical.</u>

    1. $\sqrt{36}$ 2. $\sqrt{100}$

    3. $\sqrt{8}$ 4. $\sqrt{27}$
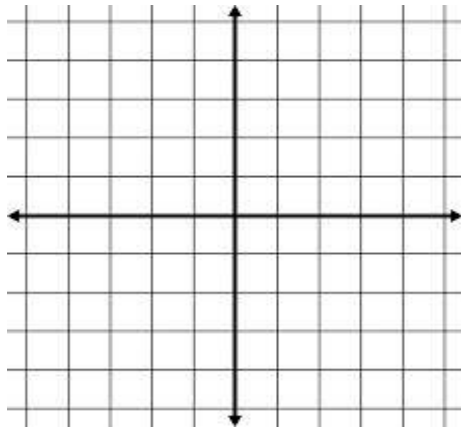
    5. $5\sqrt{12}$ 6. $4\sqrt{18}$

VII. <u>Plot and label</u> (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. $3x + 4y = 1$

Slope = _____   y-intercept = _____

slope = _____   y-intercept = _____

Name: _____   Answer Sheet Geometry 322

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. Factor and solve each quadratic equation

    1. _____

    2. _____

VI. Simplify the radical

    1. _____

    2. _____

    3. _____

    4. _____

    5. _____

    6. _____

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 = _____