

To be completed over the summer and handed in on the first day of class. Refer to online resources such as Kahn Academy for guidance as needed.

Directions: Show all work on these pages.

1. Evaluate without a calculator:

$$7 \cdot 2^2 + 4(5 - 2) \quad \underline{\hspace{2cm}}$$

2. Evaluate:

$$\text{A) } -2^4 = \underline{\hspace{2cm}} \quad \text{B) } (-2)^4 = \underline{\hspace{2cm}}$$

3. Simplify:

$$\text{A) } 3(x - 2) - (4 + x) \quad \underline{\hspace{2cm}}$$

4. Evaluate the expression for the given value of the variable.

$$\text{A) } x^2 - 5x - 8 \quad \text{when } x = 3$$

$\underline{\hspace{2cm}}$

$$\text{B) } 4(x^2 + 2x) - 2x(x - 1) \quad \underline{\hspace{2cm}}$$

$$\text{B) } x^3 + 4 \quad \text{when } x = -4$$

$\underline{\hspace{2cm}}$

5. Solve the system using elimination: $\begin{cases} -8x - 10y = 24 \\ 6x + 5y = 2 \end{cases}$

$$x = \underline{\hspace{2cm}} \quad y = \underline{\hspace{2cm}}$$

6. Solve the equations for x:

A) $-(x + 2) - 2x = -2(x + 1)$ *Distribute! Combine Like Terms!

x = _____

B) $\frac{7}{2}x - 1 = 2x + 5$

x = _____

7. Use the following points: (-7, 2) and (-1, -4).

a) Find the slope of the line through the points: _____

b) Write the equation of the line through the points in slope intercept form: $y =$ _____

Inequalities and Absolute Values.

8. Solve and graph your solution set: $3x + 4 \geq 5x - 8$



9. Solve and graph the inequality: $8x < 1$ or $x - 9 > -5$



10. Solve the absolute value function for x: $|2x| = 18$

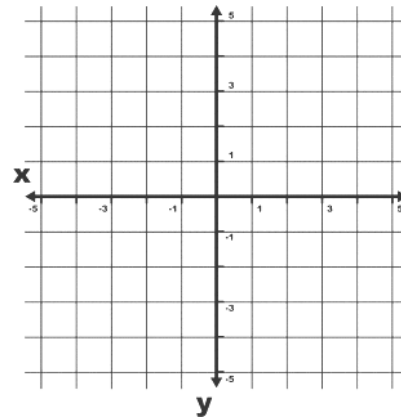
x = _____ x = _____

10. Graphing Linear Equations:

A) $y = 3x - 2$

*State the slope and y-intercept of this line.

Slope _____ y intercept _____



B) $x = 2$

- i) Graph
- ii) Slope of the line: _____

