

NAME: _____

1. Write a system of one linear equation and one absolute value equation with one solution.

[1] _____

2. Solve the system of equations.

$$y = |x| - 3$$

$$y = -x + 5$$

[2] _____

3. Solve the system of equations.

$$y = |x| - 10$$

$$y = -x^2 - 4$$

[A] $(-4, -7), (-2, -8)$

[B] $(-4, -7), (-1, -10)$

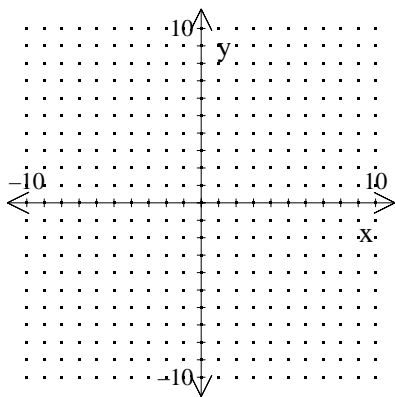
[C] $(2, -8), (-2, -8)$ [D] $(2, -8), (-1, -10)$

[3] _____

4. Use a graphing calculator to solve the following system of equations. Sketch the graph.

$$y = 4x + 1$$

$$y = |x - 1|$$

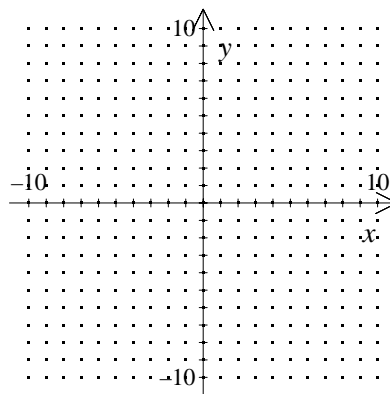


[4] _____

5. Determine (graph) the solution of the following system:

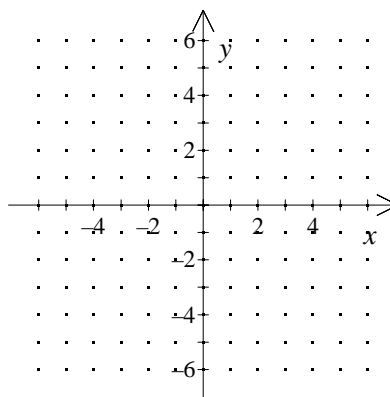
$$|x - 3| \geq 2$$

$$x + y \leq 3$$



[5] _____

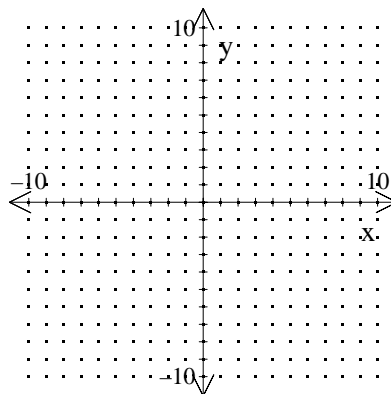
6. Sketch a graph of a system of two quadratic equations with one solution.



[6] _____

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7. Graph $y = \sqrt{x} + 2$ and $y = 4$ on the same coordinate plane. What are the coordinates of the point of intersection? What do these coordinates tell you?



[7] _____

8. Compare the quantities in Column A and Column B.

Column A

Column B

the number of solutions of
the system of equations

the number of solutions of
the system of equations

$$y = |2x|$$

$$y = 2x^2$$

$$y = 2x$$

$$y = 2x$$

[A] The quantity in Column A is greater.

[B] The quantity in Column B is greater.

[C] The quantities are equal.

[D] The relationship cannot be determined from the information given.

[8] _____

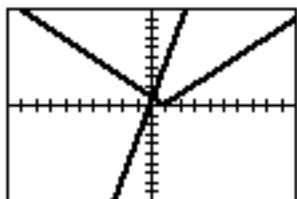
Answers may vary. Sample:

$$y = x$$

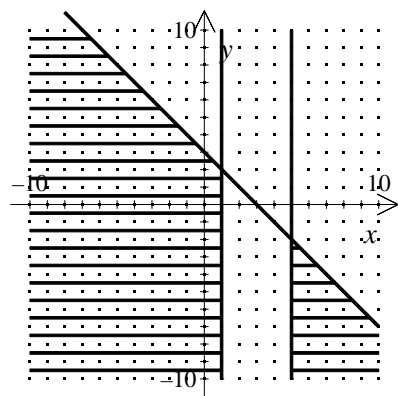
[1] $y = |2x|$ _____

[2] $(4, 1)$ _____

[3] C _____

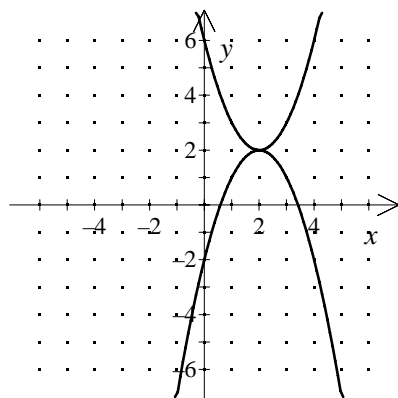


[4] $(0, 1)$ _____



[5] _____

Answers may vary. Sample:



[6] _____

[7] $(4, 4)$; the solution to the equation $4 = \sqrt{x} + 2$ _____

[8] A _____