

Bellwork Alg 2A Monday, November 21, 2016

Solve each system of equations. Give answers as ordered pairs.

1.

$$y = -1$$

$$y = |x - 2| - 3$$

2.

$$y = -3x + 1$$

$$y = |x + 1| - 4$$

3.

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

$$2x^2 + 6x - 2y = 20$$

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1.

$$y = -1$$

$$y = |x - 2| - 3$$

$$-1 = |x - 2| - 3$$

$$+3 \quad +3$$

$$2 = |x - 2|$$

$$x - 2 = 2 \quad \text{or} \quad x - 2 = -2$$

$$x = 4, 0$$

$$(4, -1) \quad (0, -1)$$

You could solve these by graphing

2.

$$y = -3x + 1$$

$$y = |x + 1| - 4$$

$$-3x + 1 = |x + 1| - 4$$

$$+4 \quad +4$$

$$-3x + 5 = |x + 1|$$

$$x + 1 = -3x + 5 \quad \text{or} \quad x + 1 = -(-3x + 5)$$

$$+3x \quad -1 \quad +3x \quad -1$$

$$4x = 4$$

$$x = 1$$

$$x = 1$$

$$(1, -2)$$

3.

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

$$2x^2 + 6x - 2y = 20$$

USE
SUBSTITUTION

$$2x^2 + 6x - 2(x^2 - 4x + 4) = 20$$

$$2x^2 + 6x - 2x^2 + 8x - 8 = 20$$

$$14x - 8 = 20$$

$$+8 \quad +8$$

$$14x = 28$$

$$x = 2$$

$$(2, 0)$$

$$x + 1 = -(-3x + 5)$$

$$x + 1 = 3x - 5$$

$$-x + 5 \quad -x + 5$$

$$6 = 2x$$

$$x = 3$$

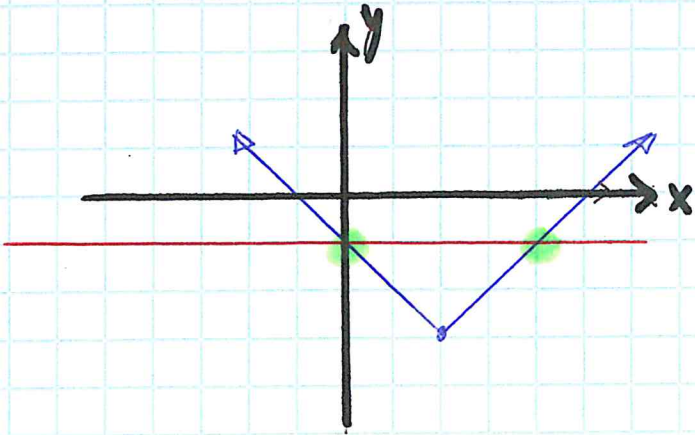
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Answers to #1 & #2 By Graphing

①

$$y = -1$$

$$y = |x-2| - 3$$



②

$$y = -3x + 1$$

$$y = |x+1| - 4$$

