

Name: _____

Date: _____

Period: _____

Quiz 3.11-3.14 Practice

1. Find two points that satisfy the equation
- $5y + 3x = -13$
- .

Sample:

-3	-0.8
-2	-1.4
-1	-2
0	-2.6
1	-3.2
2	-3.8
3	-4.4

2. Find two points that do not satisfy the equation
- $5y + 3x = -13$
- .

Many possible points.

3. Match each equation with a graph. Explain each choice.

a. $y = 3$

III.

b. $y + 3 = x$

IV.

c. $y = x + 3$

I.

d. $y + 3 = x^2$

II.

3. Graph the equations
- $y + 2x = 0$
- and
- $x + 2y = 0$
- . Where do these equations intersect on the graph?

$y + 2x = 0$

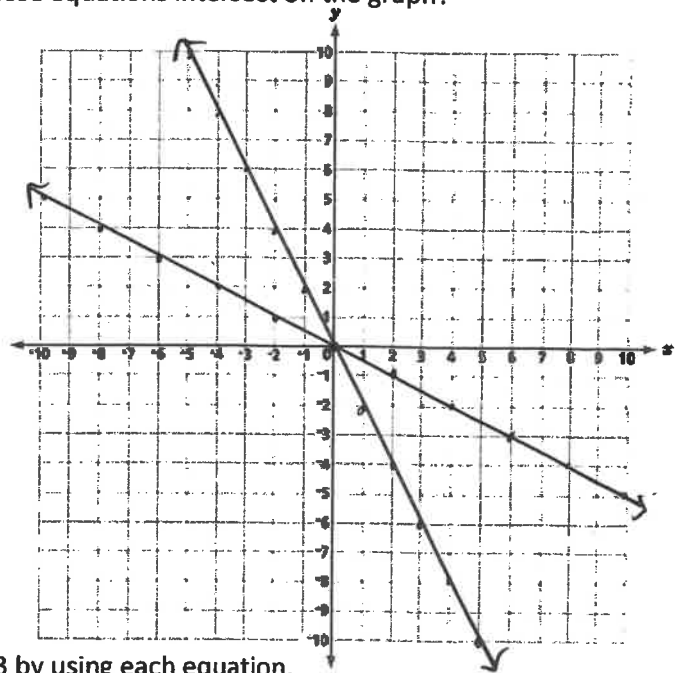
Sample:

x	y
-3	6
-2	4
-1	2
0	0
1	-2
2	-4
3	-6

$x + 2y = 0$

Sample:

x	y
-3	1.5
-2	1
-1	0.5
0	0
1	-0.5
2	-1
3	-1.5

They intersect at $(0, 0)$.

4. Verify these equations intersect at the point you picked from #3 by using each equation.

$y + 2x = 0$

$0 + 2(0) = 0$

$0 + 0 = 0$

$0 = 0 \checkmark$

$x + 2y = 0$

$0 + 2(0) = 0$

$0 + 0 = 0$

$0 = 0 \checkmark$

5. For each point, find the value of h such that the point satisfies the equation $y^2 = x + 4$.

a. $(h, 0)$

$$h = -4$$

b. $(h, 1)$

$$h = -3$$

c. $(h, 2)$

$$h = 0$$

d. $(h, 3)$

$$h = 5$$

e. $(h, -1)$

$$h = -3$$

f. $(h, -2)$

$$h = 0$$

6. How are equations and graphs related?

Points on a line are solutions to the equation.
A line is a visual representation of all of the solutions.

7. How can you tell if a point is on a graph?

Substitute the point into the equation
to see if it makes the equation
true.

8. Do the graphs of $4y = (x - 3)^2$ and $3x - y = 14$ intersect at $(5, 1)$? Explain.

$$4y = (x - 3)^2$$

$$4(1) = (5 - 3)^2$$

$$4 = (2)^2$$

$$4 = 4 \checkmark$$

$$3x - y = 14$$

$$3(5) - 1 = 14$$

$$15 - 1 = 14$$

$$14 = 14 \checkmark$$

Yes, $(5, 1)$ is a solution to both
equations, so they intersect at $(5, 1)$.