

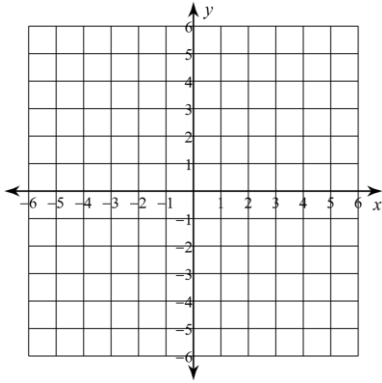
2.1.D4 - STANDARD FORM OF A LINEAR EQUATION

Determine the horizontal/ x -intercept and vertical/ y -intercept. Then sketch its graph.

1. $2x - y = 3$

H.int. _____

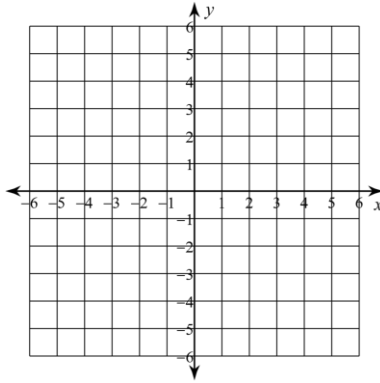
V.int. _____



2. $x + y = -2$

H.int. _____

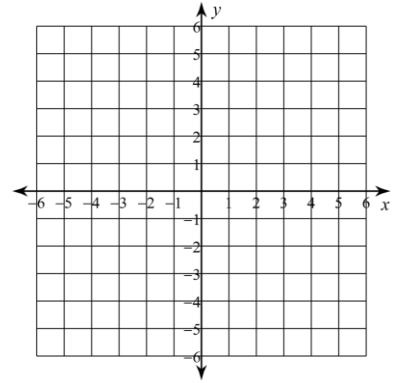
V.int. _____



3. $2x - 3y = 7$

H.int. _____

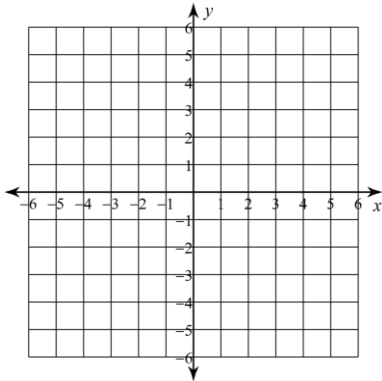
V.int. _____



4. $-x + 2y = 4$

H.int. _____

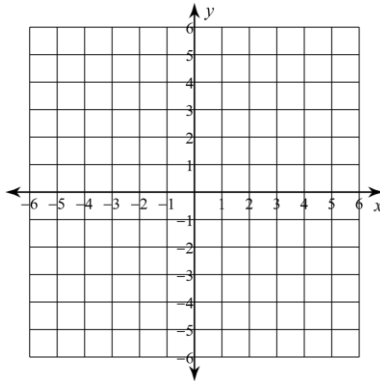
V.int. _____



5. $3y = 12$

H.int. _____

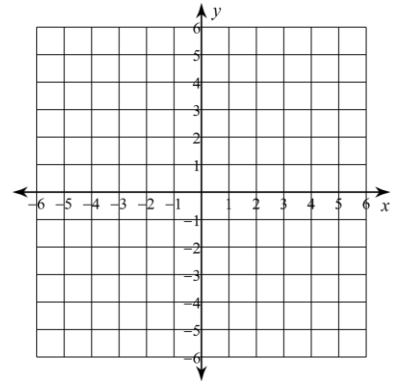
V.int. _____



6. $4x = -8$

H.int. _____

V.int. _____



7. The equations of lines k , p , and m are given below:

$k: x + 2y = 6$

$p: 6x + 3y = 12$

$m: -x + 2y = 10$

Which statement is true?

- a. p is perpendicular to m
- b. m is perpendicular to k
- c. k is parallel to p
- d. m is parallel to k

8. The equations of lines k , m , and n are given below:

$k: 3y + 6 = 2x$

$m: 3y + 2x + 6 = 0$

$n: 2y = 3x + 6$

Which statement is true?

- a. n is perpendicular to m
- b. m is perpendicular to k
- c. k is parallel to m
- d. m is parallel to n

True or False?

9. The line $3x + 5y = 7$ has slope $3/5$.
10. The line $4x + 3y = 52$ intersects the x -axis at $x = 13$.
11. The lines $y = 8 - 3x$ and $-2x + 16y = 8$ both cross the y -axis at $y = 8$.
12. If two lines never intersect then their slopes are equal.
13. The equation of a line parallel to the y -axis could be $y = -0.75$.
14. The line parallel to the x -axis has slope zero.
15. The slope of the line perpendicular to $y = -7$ is undefined.

16. Write a linear function for the line that passes through the point $(3, 4)$ and is parallel to the x -axis.

17. Write the equation of the line parallel to the line whose equation is $4x + 3y = 7$ and also passes through the point $(-5, 2)$.

18. Write an equation of a line which passes through $(6, 9)$ and is perpendicular to the line whose equation is $4x - 6y = 15$?