

5-5 Practice

Form G

Find the x- and y-intercepts of the graph of each equation.

1. $x + y = 7$

x-int (y=0)	y-int (x=0)
$x = 7$ (7, 0)	$y = 7$ (0, 7)

2. $x - 3y = 9$

x-int (y=0)	y-int (x=0)
$x = 9$ (9, 0)	$-3y = 9$ $y = -3$ (0, -3)

3. $2x + 3y = -6$

x-int (y=0)	y-int (x=0)
$2x = -6$ $x = -3$ (-3, 0)	$3y = -6$ $y = -2$ (0, -2)

4. $-4x - 2y = -8$

x-int (y=0)	y-int (x=0)
$-4x = -8$ $x = 2$ (2, 0)	$-2y = -8$ $y = 4$ (0, 4)

5. $5x - 4y = -12$

x-int (y=0)	y-int (x=0)
$5x = -12$ $x = -\frac{12}{5}$ $(-\frac{12}{5}, 0)$	$-4y = -12$ $y = 3$ (0, 3)

6. $-2x + 7y = 11$

x-int (y=0)	y-int (x=0)
$-2x = 11$ $x = -\frac{11}{2}$ $(-\frac{11}{2}, 0)$	$7y = 11$ $y = \frac{11}{7}$ (0, $\frac{11}{7}$)

Graph each equation using x- and y-intercepts.

7. $-5x + y = -10$

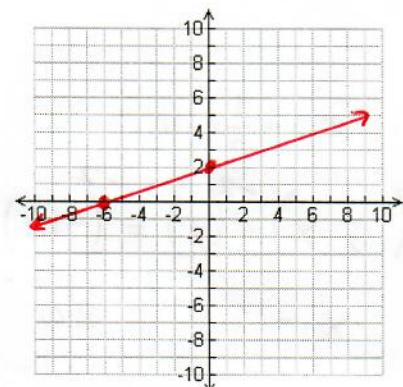
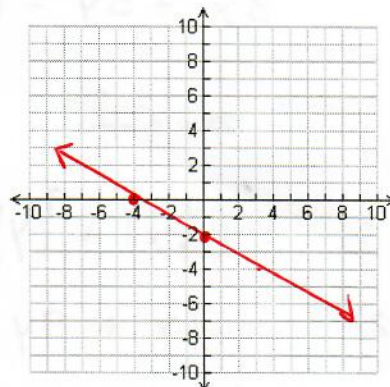
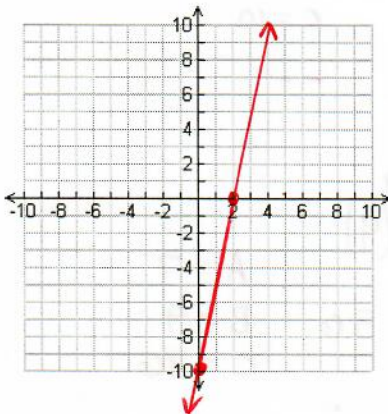
x-int (y=0)	y-int (x=0)
$-5x = -10$ $x = 2$ (2, 0)	$y = -10$ (0, -10)

8. $-3x - 6y = 12$

x-int (y=0)	y-int (x=0)
$-3x = 12$ $x = -4$ (-4, 0)	$-6y = 12$ $y = -2$ (0, -2)

9. $4x - 12y = -24$

x-int (y=0)	y-int (x=0)
$4x = -24$ $x = -6$ (-6, 0)	$-12y = -24$ $y = 2$ (0, 2)



For each equation, tell whether its graph is a *horizontal* or a *vertical* line.

10. $y = -2$



horizontal

11. $x = 0$



vertical

12. $y = -0.25$



horizontal

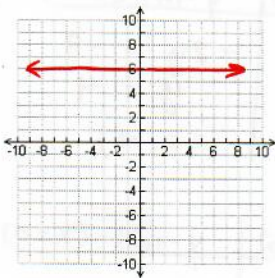
13. $x = -5$



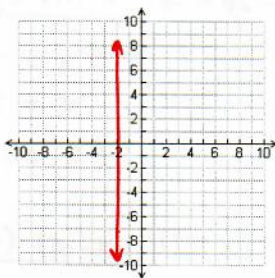
vertical

Graph each equation.

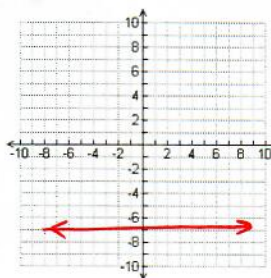
14. $y = 6$



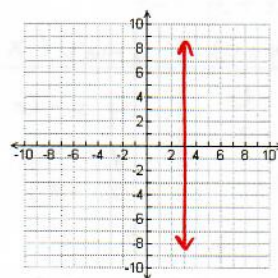
15. $x = -2$



16. $y = -7$



17. $x = 3$



$Ax + By = C$

- no fractions
- no decimals
- $A > 0$

Write each equation in standard form using integers.

18. $y = x - 4$

$^{-1}(-x) + ^{-1}(y) = ^{-1}(-4)$

$x - y = 4$

$A = 1$
 $B = -1$
 $C = 4$

19. $y = 3x + 5$

$-3x + y = 5$

(multiply by -1)

$3x - y = -5$

$A = 3$
 $B = -1$
 $C = -5$

20. $y = -2x + 8$

$2x + y = 8$

$A = 2$
 $B = 1$
 $C = 8$

21. $y = -\frac{3}{5}x + 2$

$^5(\frac{3}{5}x) + ^5(y) = ^5(2)$

$3x + 5y = 10$

$A = 3$
 $B = 5$
 $C = 10$

22. $y = \frac{1}{2}x - 10$

$^{-2}(-\frac{1}{2}x) + ^{-2}(y) = ^{-2}(-10)$

$x - 2y = 20$

$A = 1$
 $B = -2$
 $C = 20$

23. $y = -\frac{7}{9}x + 4$

$^9(\frac{7}{9}x) + ^9(y) = ^9(4)$

$7x + 9y = 36$

$A = 7$
 $B = 9$
 $C = 36$