...Part II: Slopes and Intercepts of Straight Lines

| Find the slope of the line containing the points:	Find the slope of the line containing the points:	Find the slope of the line containing the points:
1. P1(3, 1) & P2(1, 3) $m = (y_2-y_1/x_2-x_1)$ $m = (3-1)/(1-3)$ $m = 2/-2$ $m = -1$	2. P1(-1, 4) & P2(2, 5) $m = (y_2-y_1/x_2-x_1)$ $m = (5-4)/(2+1)$ $m = 1/3$	3. P1(-3, 1) & P2(-4, 5) $m = (y_2-y_1/x_2-x_1)$ $m = (5-1)/(-4+3)$ $m = 4/-1$ $m = -4$
Find the slope of the line containing the points:	Find the slope of the line containing the points:	Find the slope of the line containing the points:
4. P1(0, 3) & P2(4, 0) $m = (y_2-y_1/x_2-x_1)$ $m = (0-3)/(4-0)$ $m = -3/4$	5. P1(2, 4) & P2(2, -2) $m = (y_2-y_1/x_2-x_1)$ $m = (-2-4)/(2-2)$ $m = -6/0$ $m = $ undefined	6. P1(2, 5) & P2(-3, -2) $m = (y_2-y_1/x_2-x_1)$ $m = (-2-5)/(-3-2)$ $m = -7/-5$ $m = 7/5$
Find the slope of the line containing the points:	Find the slope of the line containing the points:	Find the slope of the line containing the points:
7. P1(2, 3) & P2(-1, 3) $m = (y_2-y_1/x_2-x_1)$ $m = (3-3)/(-1-2)$ $m = 0/-3$ $m = 0$	8. P1(0, 4) & P2(-2, 5) $m = (y_2-y_1/x_2-x_1)$ $m = (5-4)/(-2-0)$ $m = 1/-2$ $m = -1/2$	9. P1(-3, 4) & P2(-2, 1) $m = (y_2-y_1/x_2-x_1)$ $m = (1-4)/(-2+3)$ $m = -3/1$ $m = 3$

10. Find the x- and y-intercepts and graph:
$$x - 2y = -4$$
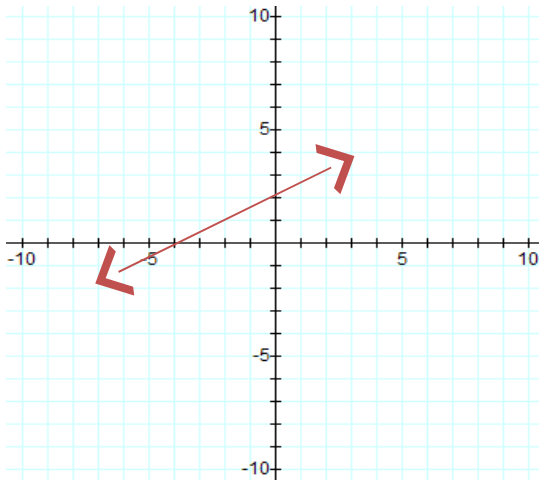
Intercepts:

x : if y = 0, x = -4

y : if x = 0, y = 2
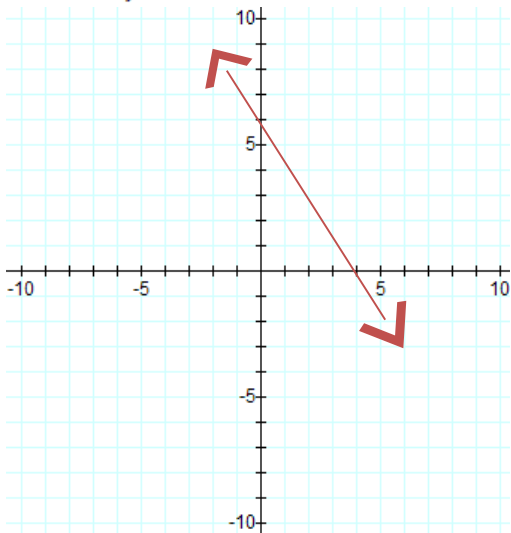
11. Find the x- and y-intercepts and graph:
$$4x - 2y = 8$$
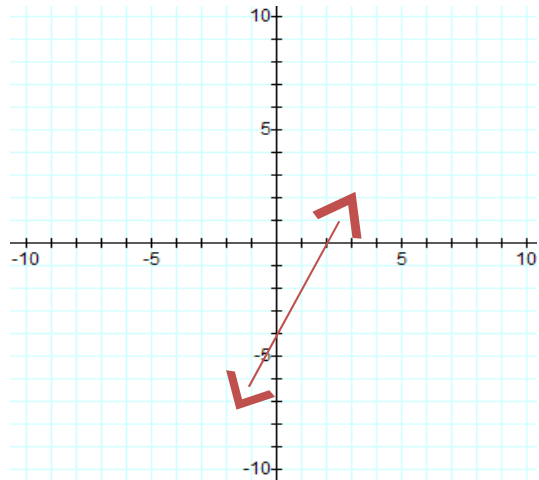
Intercepts:

x : if y = 0, x = 2

y : if x = 0, y = -4

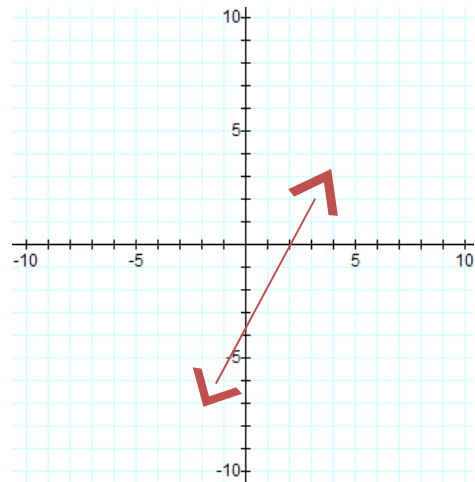12. Find the x- and y-intercepts and graph:
$$3x + 2y = 12$$

Intercepts:

x : if y = 0, x = 4

y : if x = 0, y = 6

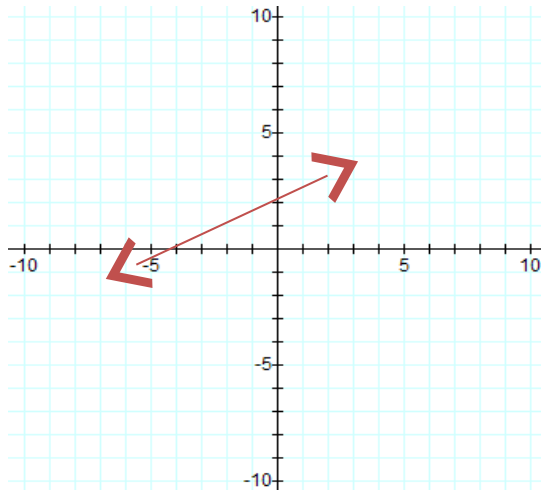13. Find the x- and y-intercepts and graph:
$$2x - y = 4$$

Intercepts:

x : if y = 0, x = 2

y : if x = 0, y = -4

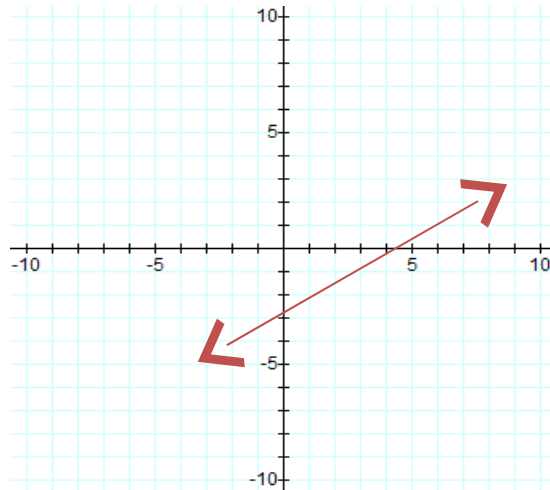14. Graph by using the slope and the y-intercept: $y = \frac{1}{2}x + 2$

Intercepts:

x : if y = 0, x = -4

y : if x = 0, y = 2

15. Graph by using the slope and the y-intercept: $y = \frac{2}{3}x - 3$
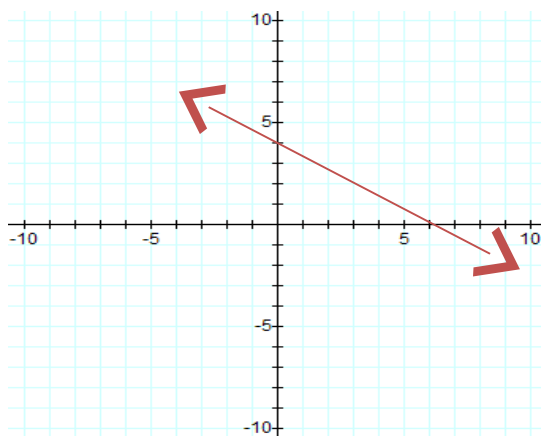

Intercepts:

x : if y = 0, x = 9/2

y : if x = 0, y = -3

16. Graph by using the slope and the y-intercept: $y = -\frac{2}{3}x + 4$
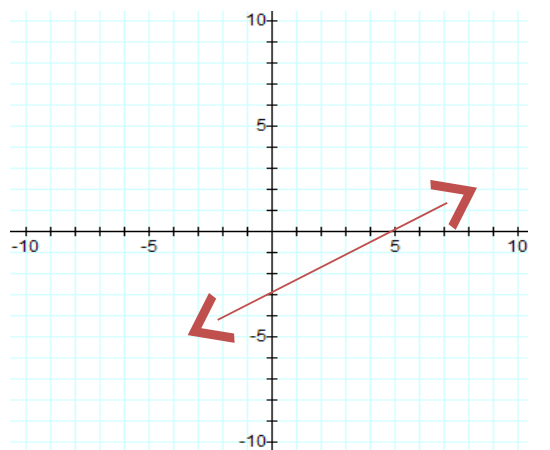

Intercepts:
x : if y = 0, x = 6

y : if x = 0, y = 4

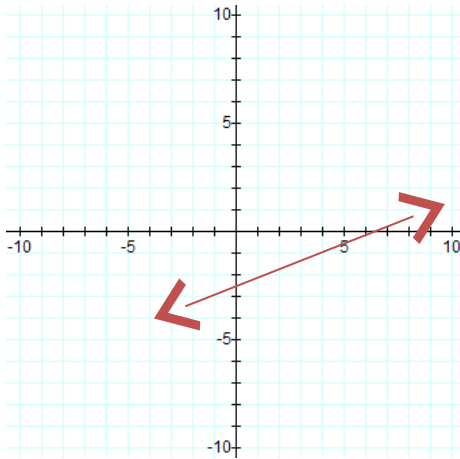17. Graph by using the slope and the y-intercept: $y = \frac{3}{5}x - 3$

Intercepts:
x : if y = 0, x = 5

y : if x = 0, y = -3

18. Graph the line that passes through the point (3, -4) and has a slope of 2/5.
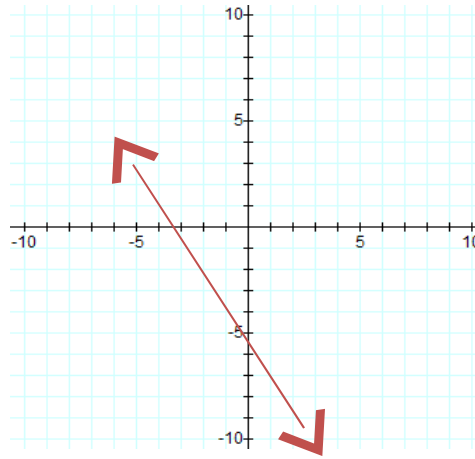
$(y-y_1) = m (x-x_1)$

$y + 4 = (2/5)(x-3)$

$2x-5y = 14$

X-intercept: if y=0, x = 7

Y-intercept: if x=0, y = -14/5   ~ -2.8

19. Graph the line that passes through the point (-4, 1) and has a slope of -5/3.
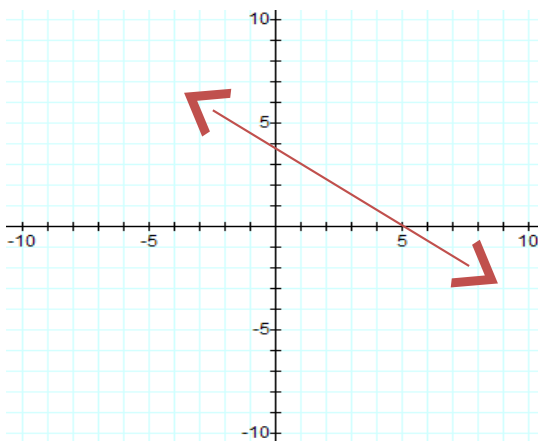
$(y-y_1) = m (x-x_1)$

$y - 1 = (-5/3)(x+4)$

$5x+3y = -17$

X-intercept: if y=0, x = -17/5   ~ -3.4

Y-intercept: if x=0, y = -17/3   ~ -5.7

20. Graph the line that passes through the point (5, 0) and ha a slope of -3/4.

$(y-y_1) = m (x-x_1)$

$y = (-3/4)(x-5)$

$3x+4y = 15$

X-intercept: if y=0, x = 5

Y-intercept: if x=0, y = 15/4   ~ 3.75