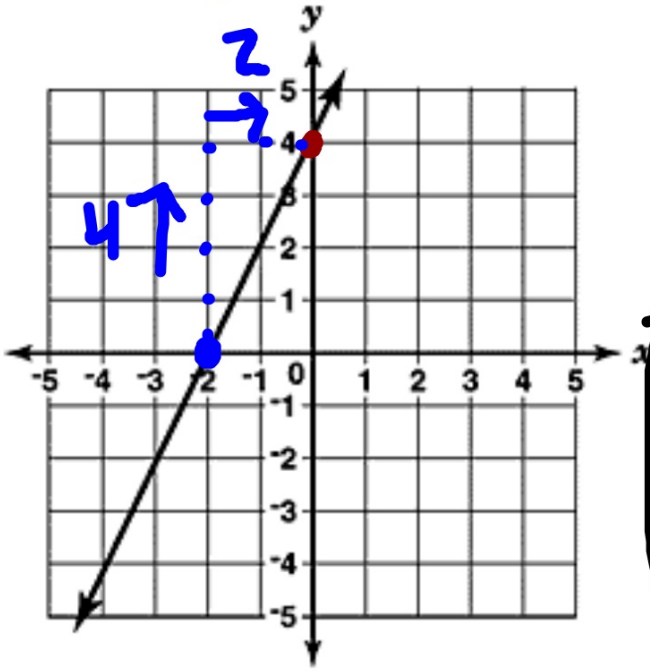
LessonAlgebra 5-2C - Slope-Intercept Form

January 12, 2011

Write the equation for this line in slope-intercept form

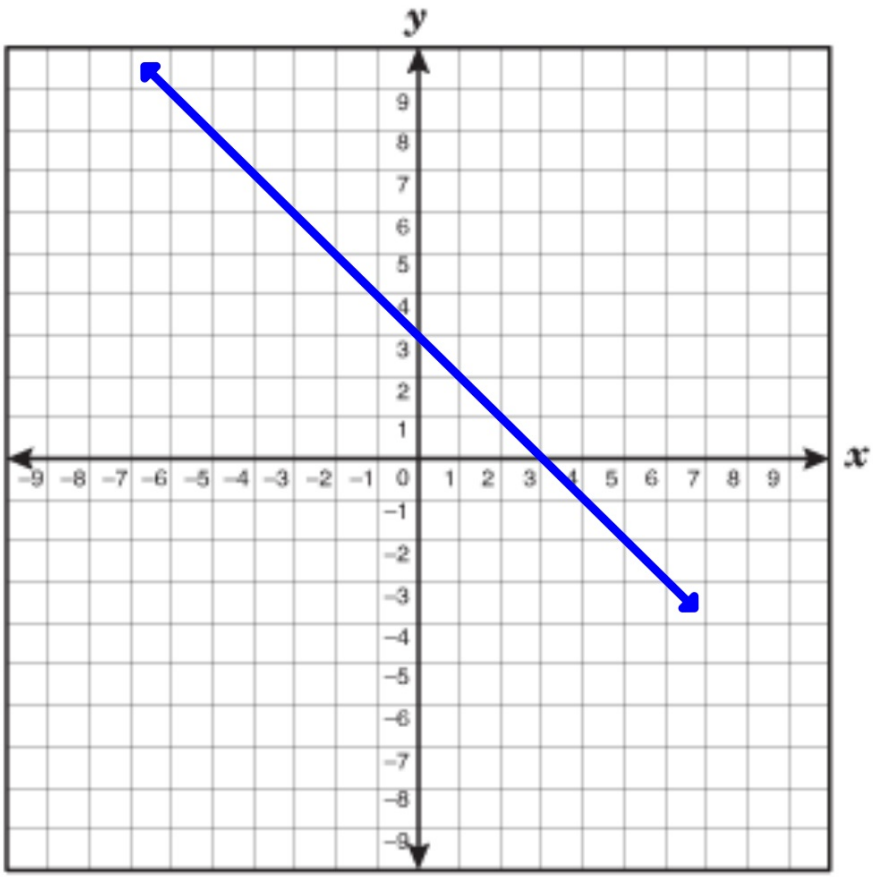
(Hint: find the slope, and the y-intercept.)

$y = mx + b$



Slope-Intercept Form

$$y = mx + b$$



y = mx + b

1) Write an equation given the slope and the y-intercept.

$m = -\frac{2}{5} \quad b = 5$ $y = -\frac{2}{5}x + 5$

2) Write an equation from a graph. see bellwork

3) Verify a point (ordered pair) is on a line.

(x, y)

4) Graph equations

Does the ordered pair lie on the graph of the equation?
(Is the point on the graph?)

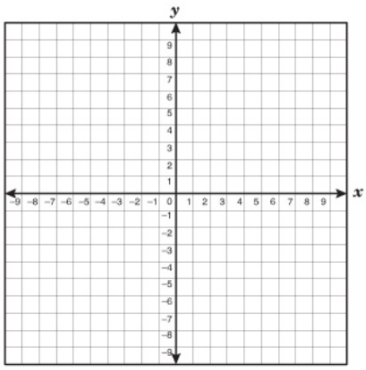
$(1, 5);\ y = 3x + 2$

x y

$5 = 3(1) + 2$

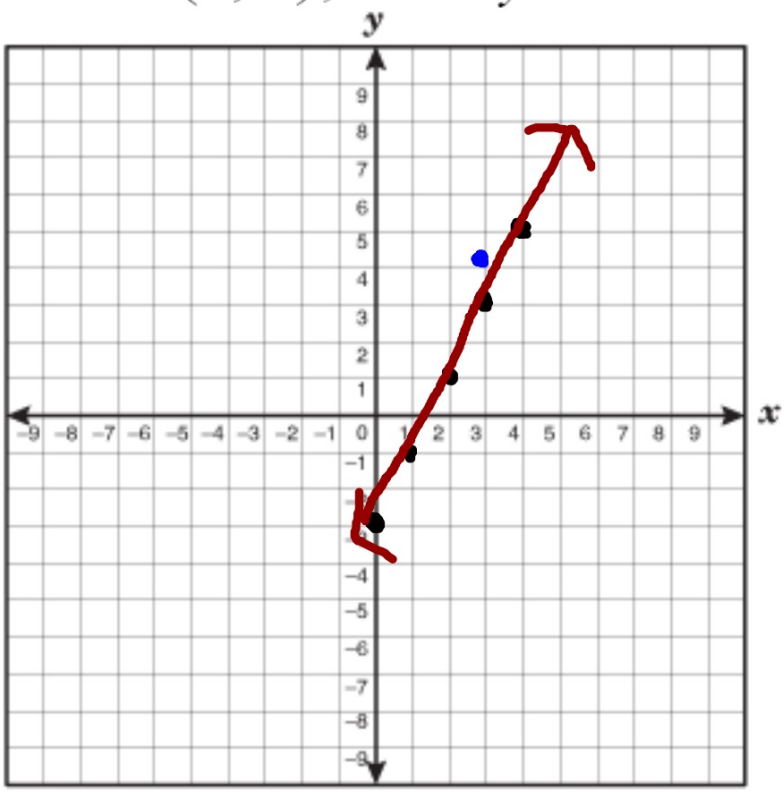
$5 = 5$ ✓

yes, it's on the graph.



Does the ordered pair lie on the graph of the equation?
(Is the point on the graph?)

$$(3, 4);\ \ 2x - y = 3$$



Does the ordered pair lie on the graph of the equation?
(Is the point on the graph?)

$(-2, 3)$

$y = 4x + 7$

$3 = 4(-2) + 7$

$3 = -8 + 7$

$3 = -1$?

Does the ordered pair lie on the graph of the equation?
(Is the point on the graph?)

$(4, -1)$ $y = 2x - 9$

$-1 = 2(4) - 9$

$-1 = 8 - 9$

$-1 = -1$ ✓

Does the ordered pair lie on the graph of the equation?
(Is the point on the graph?)

$(-2, -1)$ $2x + y = -3$

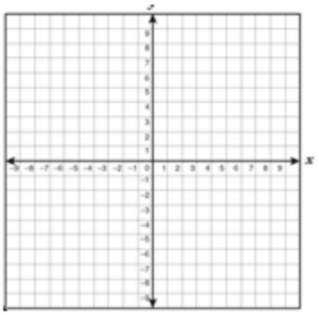
$2(-2) + -1 = -3$

$-4 + -1 = -3$

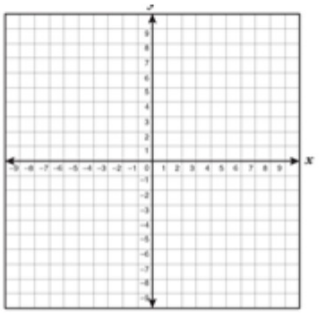
$-5 = -3$

no!

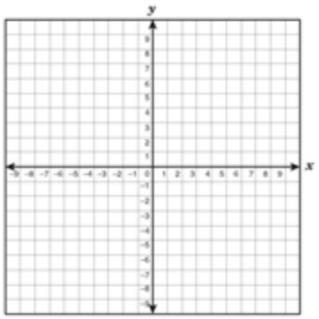
34



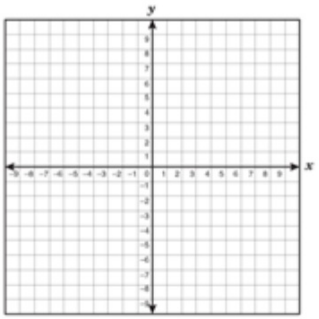
35



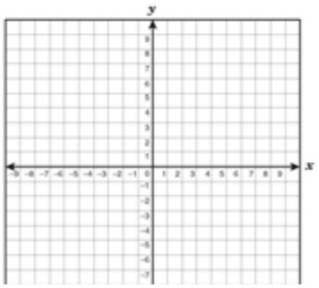
36



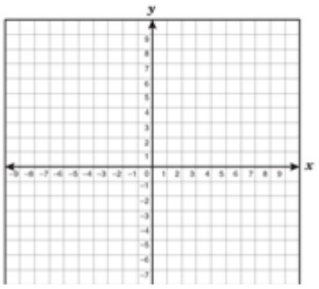
37



38



39



34. **Use the slope and y-intercept to graph each equation.**

$y = \frac{1}{2}x + 4$

$m = \frac{1}{2}$ $\frac{\text{rise}}{\text{run}}$

$b = 4$