

Point-Slope Homework Day 2

Standard Form

$$Ax + By = C$$

-Easiest way to graph:

- substitute 0 for x, find the y-intercept
- substitute 0 for y, find the x-intercept
- plot these points and draw the line through them

Slope-Intercept Form

$$y = mx + b$$

-Easiest way to graph:

- Plot the y-intercept (b)
- Write the slope (m) as a fraction. Use "change in y/change in x" to get more points on your line

Point-Slope Form

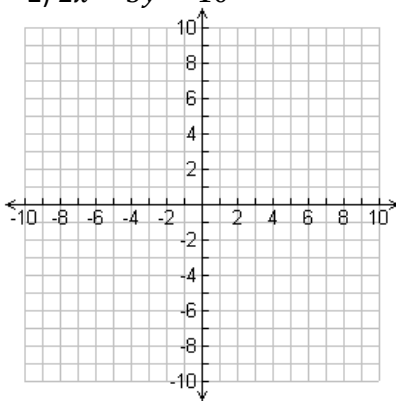
$$y - y_1 = m(x - x_1)$$

-Easiest way to graph:

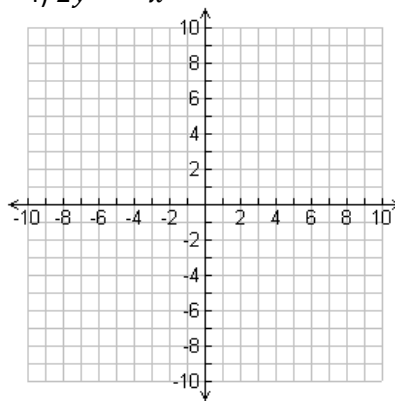
- Find the point (x_1, y_1) , and plot it
- Write the slope (m) as a fraction. Use "change in y/change in x" to get more points on your line

Graph each equation. Use each coordinate plane for two graphs.

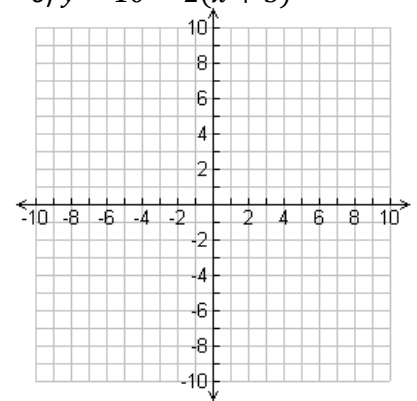
1) $y = \frac{1}{5}x + 8$



3) $y - 8 = -\frac{1}{4}(x - 2)$



5) $y + 7 = \frac{4}{3}(x - 3)$

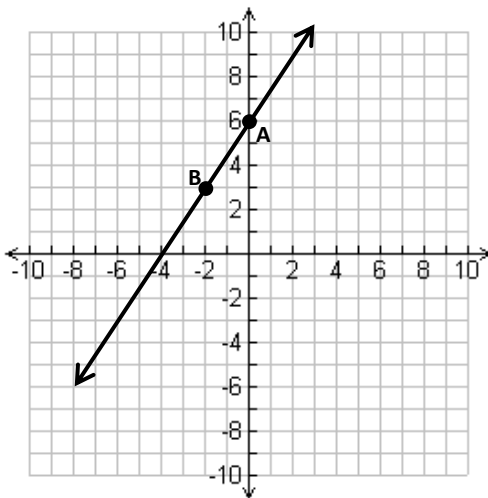


2) $2x - 5y = 10$

4) $2y = -x$

6) $y - 10 = 2(x + 5)$

7) Which form of equation do you like the best? Why? Which form do you like the least? Why?



8)

a. Use point "A" to write the equation of the line in point-slope form.

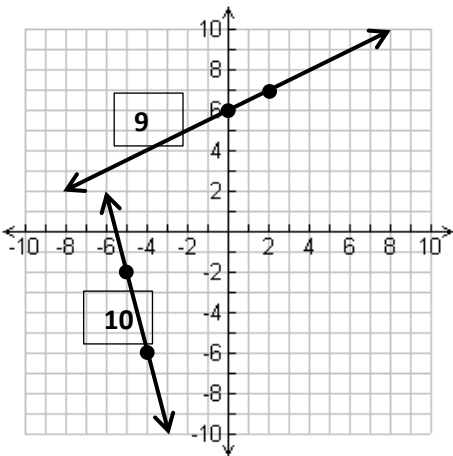
b. Solve your equation from part a for y to put it in slope-intercept form.

c. Use point "B" to write the equation of the line in point-slope form.

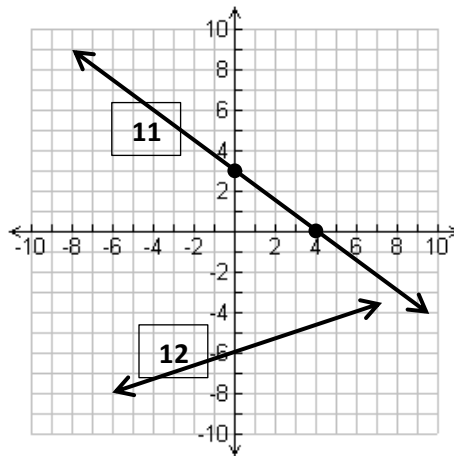
d. Solve your equation from part c for y to put it in slope-intercept form.

e. Are your answers from part b and part d equivalent? Why do you think this is?

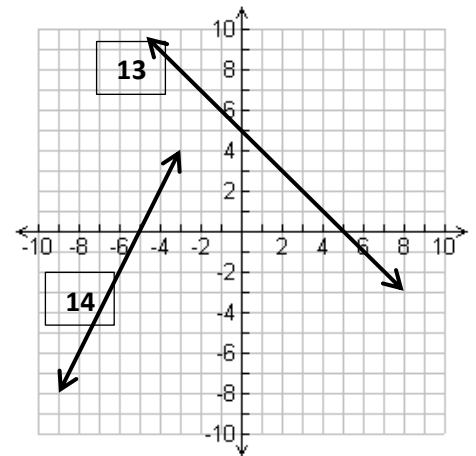
Write the equation of the line in slope-intercept form OR point-slope form.



9)



11)



13)

10)

12)

14)

15) A roller skating rink offers a special rate for birthday parties. On the same day, a party for 10 skaters costs \$107 and a party for 15 skaters costs \$137. Write an equation in point-slope form. How much would a party for 12 skaters cost?