

# Graphing a Line Given Slope and a Point

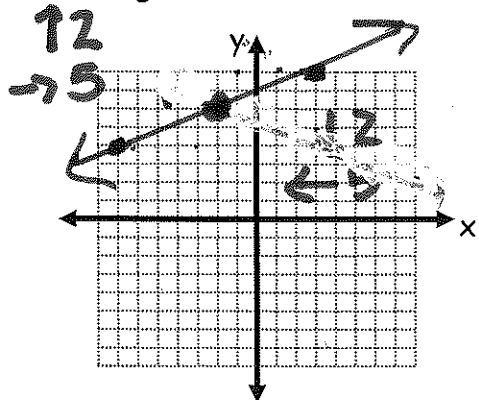
Homework

Name Key

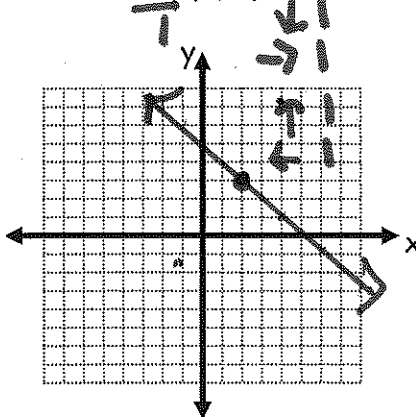
Date \_\_\_\_\_ Period \_\_\_\_\_

Given the slope and a point graph each of the following.

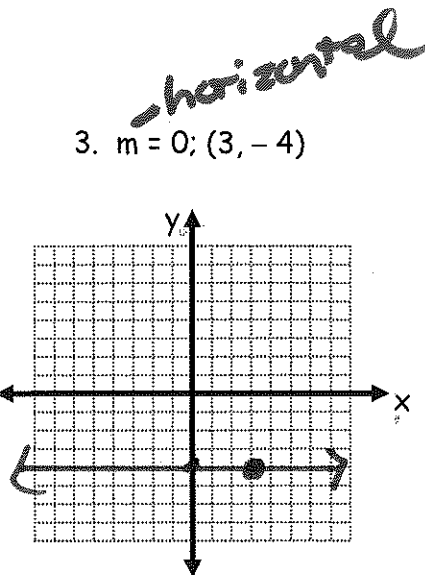
1.  $m = \frac{2}{5}; (-2, 6)$



2.  $m = -1; (2, 3)$



3.  $m = 0; (3, -4)$

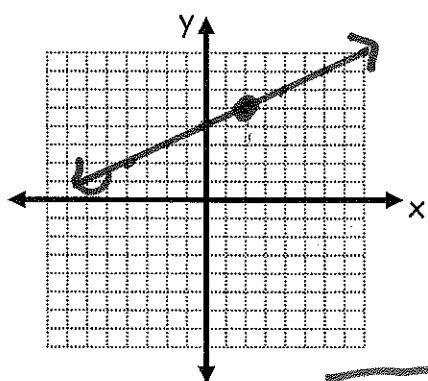


Given the following equations in point-slope form graph using the slope and a point.

4.  $y - 5 = \frac{1}{2}(x - 2)$

slope  $\frac{1}{2}$

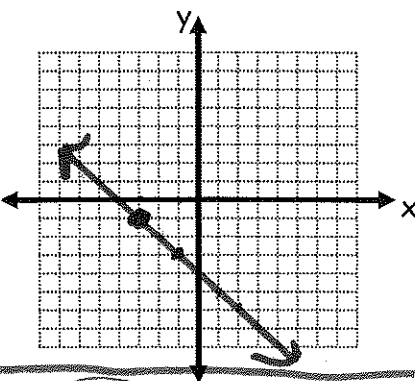
point  $(2, 5)$



5.  $y + 1 = -(x + 3)$

slope  $-1$

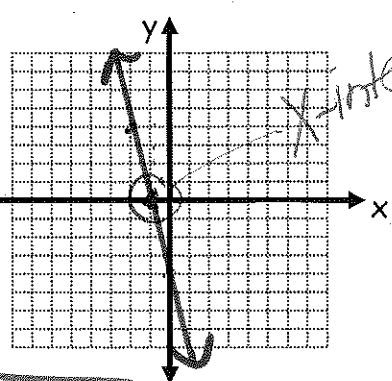
point  $(-3, -1)$



6.  $y + 0 = -4(x + 1)$

slope  $-4$

point  $(-1, 0)$



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

Slope,  $m$ , always in front of  $x$ .

Linear Graphing LG7 **★ Point-Slope after Distributing**

7.  $x + 2 = y - 4$   
 $\quad \quad \quad +4$

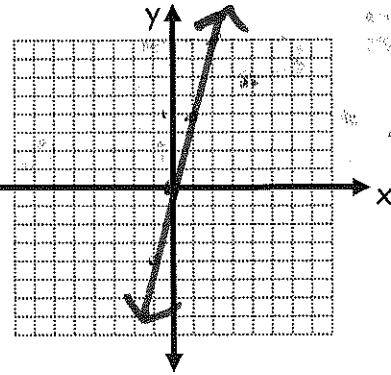
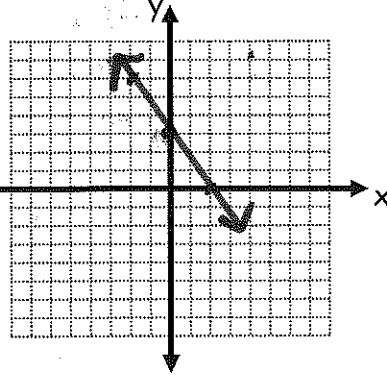
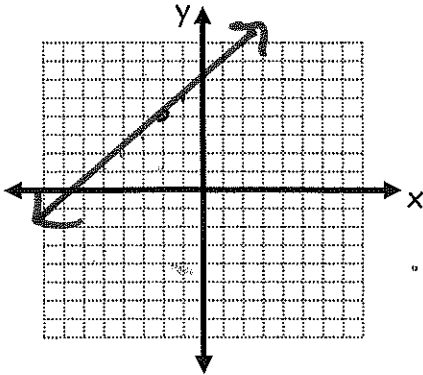
slope  $\underline{1}$   
 point  $\underline{(-2, 4)}$

8.  $y - 3 = \frac{-3}{2}x + 0$

slope  $\underline{\frac{-3}{2}}$   
 point  $\underline{(0, 3)}$

9.  $y = 4x$

slope  $\underline{4}$   
 point  $\underline{(0, 0)}$



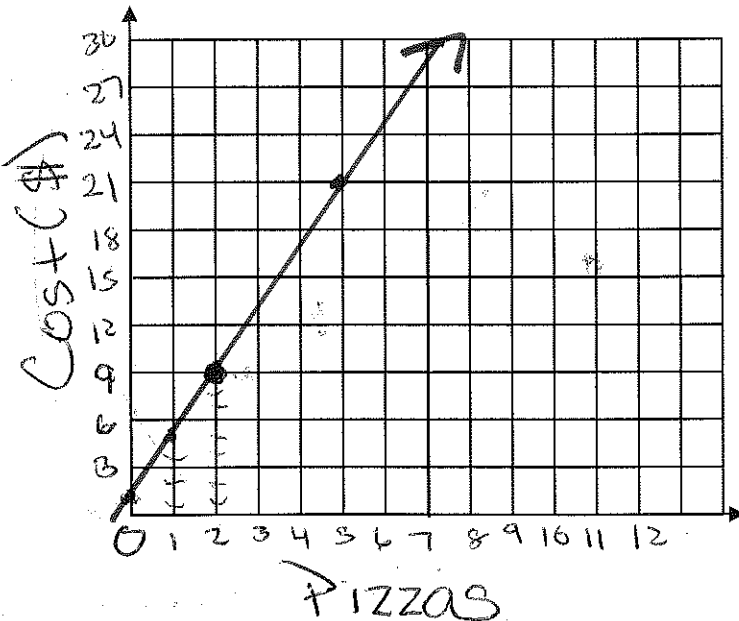
10. Pizzas are being delivered. It cost \$9 for two pizzas including delivery. Each pizza cost \$4. Indicate the point and the slope, and graph the relationship.

$y$ : \$, cost  
 $x$ : pizzas

Point  $\underline{(2, 9)}$

Slope  $\underline{4}$

rate of change  
\$4 for each pizza



What is the y-intercept?  $\underline{(0, 1)}$

What could this point represent?

could be a \$1 delivery fee