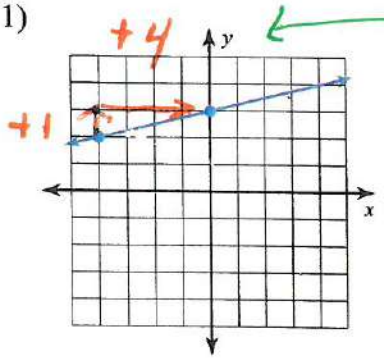
Algebra 1 To find slope, Name KEY ID: 1

FUNC.b given a graph: $m = \frac{\text{Rise}}{\text{Run}}$ Date_____ Period____

FUNC.b.1

Given the graph of a line, find the slope.
Clearly show your work. Label your your calculations and final answer using the correct variable notation. Circle your final answer.

1)

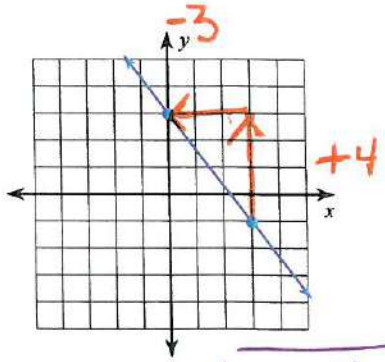


Show this work

$m = \frac{1}{4}$

Label calculation with the variable "m".

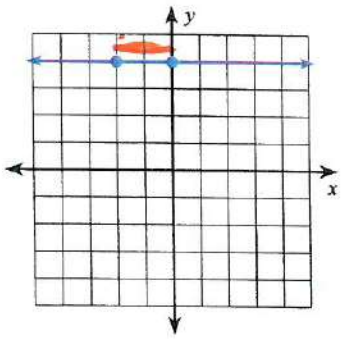
2)



$m = \frac{4}{-3}$

Leave fractions as simplified improper fraction

3)

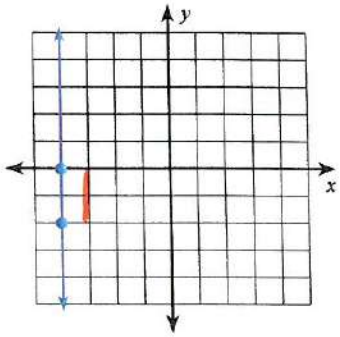


$m = \frac{0}{2}$

$m = 0$

Answer must include the correct variable "m".

4)



$m = \frac{2}{0}$

m = UNDEFINED

Algebra 1 Name KEY ID: 1

FUNC.b Date _____ Period ____

FUNC.b.2

Given a function, in slope-intercept form, graph the line and identify the slope and y-intercept.

Graph the linear function(s).

1) State the slope and y-intercept using the correct variable notations. (GREEN)

2) Label the graph with a "Y" for the y-intercept. (PINK)

3) Clearly show how you used slope to identify 2 additional points. (purple)

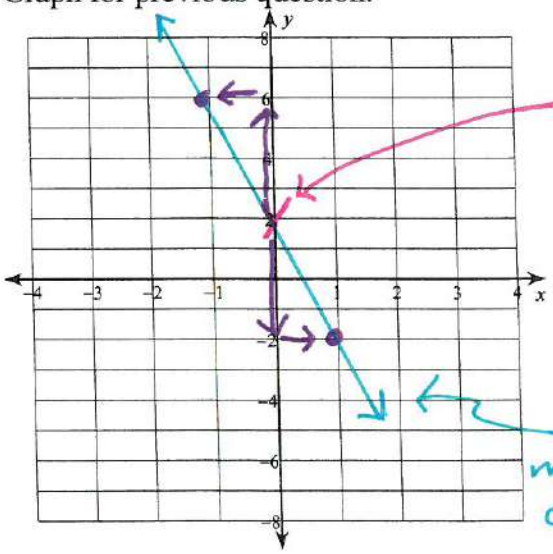
4) Draw the line. (blue)

Show this WORK

1) $f(x) = -4x + 2$

$m = \frac{-4}{1}$ $b = 2$

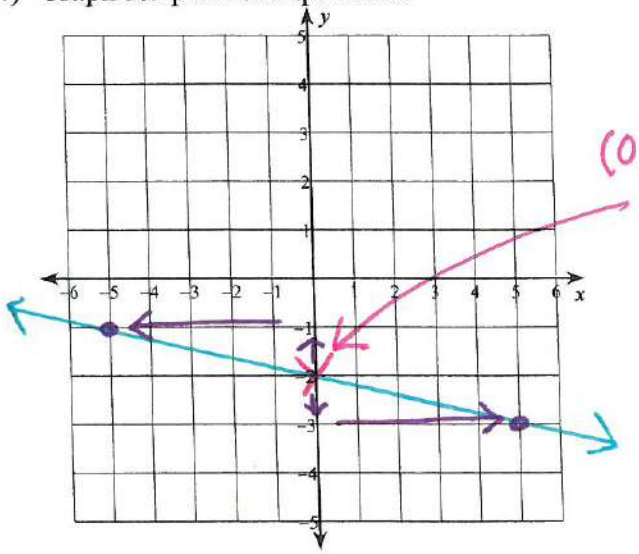
2) Graph for previous question.



3) $f(x) = -\frac{1}{5}x - 2$

$m = \frac{-1}{5}$ $b = -2$

4) Graph for previous question.



Algebra 1 Name KEY ID: 1

FUNC.b Date _____ Period ____

FUNC.b.3

Given a function, NOT in slope-intercept form, graph the line and identify the slope and y-intercept.

$y = mx + B$

1) Write the linear function in slope intercept form. Clearly show your work and write using function notation. (blue)

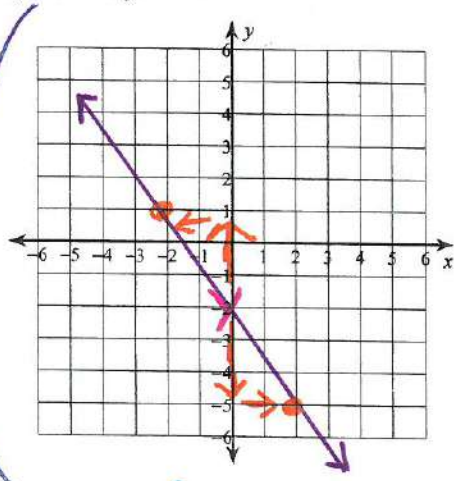
2) State the slope and y-intercept using the correct variable notations. (Green)

3) Label the graph with a "Y" for the y-intercept. (PINK)

4) Clearly show how you used slope to identify 2 additional points. (orange)

5) Draw the line. (purple)

1) $3x + 2y = -4$



$3x + 2y = -4$

$-3x \quad -3x$

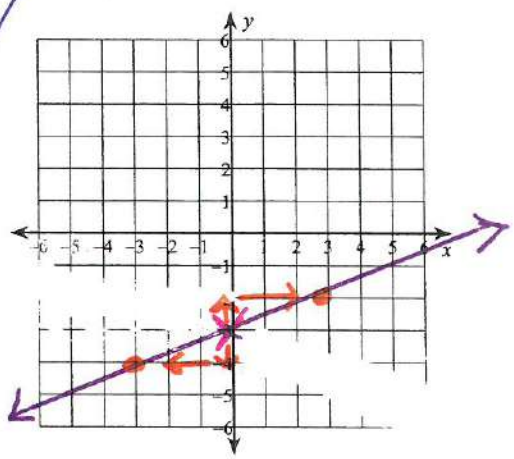
$\frac{2y}{2} = \frac{-3x}{2} - \frac{4}{2}$

$y = -\frac{3}{2}x - 2$

$m = -3/2$ $\quad b = -2$

$f(x) = -\frac{3}{2}x - 2$

2) $x - 3y = 9$



$x - 3y = 9$

$-x \quad -x$

$\frac{-3y}{-3} = \frac{-x}{-3} + \frac{9}{-3}$

$y = \frac{1}{3}x - 3$

$m = 1/3$ $\quad B = -3$

$f(x) = \frac{1}{3}x - 3$

Algebra 1 Name KEY ID: 1

FUNC.b Date _____ Period ____

FUNC.b.4
Write and graph a linear equation, using appropriate scale and labels, given a real world example.

For the following real world problem:

(a) Rewrite the given equation in slope-intercept form; and define your x and y variables using correct units. Show your work HERE:

$y - 10t - 100 = 0$
$+10T \quad +100 \quad +10T+100$

$y = 10T + 100$

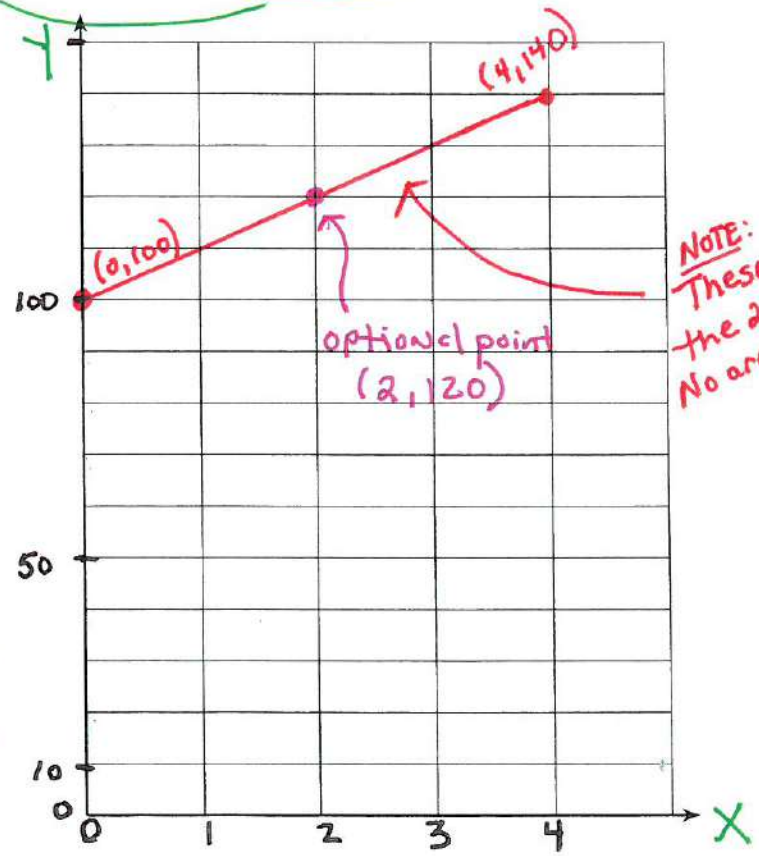
y = number of students enrolled

x = t = number of years since 201

(b) Sketch the graph of this equation using appropriate labels and scales for the given graph. Both scales must start at zero(0).

(c) For your graph clearly identify 2 points and explain how you found these points. → USE A TABLE

1) For 2010 through 2014, a small Maine High School's student enrollment, y, was related to the year, t, by the equation y-10t-100=0, where t = 0 represents the first year, 201



NOTE: These are the 2 end points. No arrows.

number of students enrolled

number of years since 201

t ↓	X	Y
2010	0	100
2012	2	120
2014	4	140