Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Sect \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Linear Equations Make-up Test – 8th Grade

Identify the slope and y intercept from the following linear equations. Then graph: (3 pts each)

y = 3x + 1 y = - $\frac{3}{4}$ x - 2

m = \_\_\_\_\_\_\_ m = \_\_\_\_\_\_\_

b = \_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_

 

Write a linear equation and graph a line that passes through the two indicated points. (4 pts each)

(0, 5) (2, 9) (-1, 2) (2, -7)

m = \_\_\_\_\_\_\_\_\_\_\_ m = \_\_\_\_\_\_\_\_\_\_

b = \_\_\_\_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_

Equation: Equation:

 

Identify the slope and y-intercept of the following equations. Write the linear equation in slope-intercept form and then graph the line that is represented by the equations. (4 pts each)

y – 4 = 3x 6x + 3y = 18

Equation: (slope-intercept form) Equation: (slope-intercept form)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

m = \_\_\_\_\_\_\_\_\_\_\_\_ m = \_\_\_\_\_\_\_\_\_\_\_\_

b = \_\_\_\_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_\_\_

 

Answer the following questions based on the information given: (4 pts)

Nate is a college student who needs college credits to graduate. After completing 2 semesters, he needs 90 more credits to graduate. After completing 5 semesters he needs 45 more credits to graduate.

If x = semesters completed, and y = remaining credits, calculate the slope of the line that represents this scenario:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is the y-intercept?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write a linear equation for this scenario.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Graph what this equation would look like:

Credits

Semesters

After how many semesters would he have no remaining credits?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_