

**Algebra 1 Homework – 4-6 and 4-7**

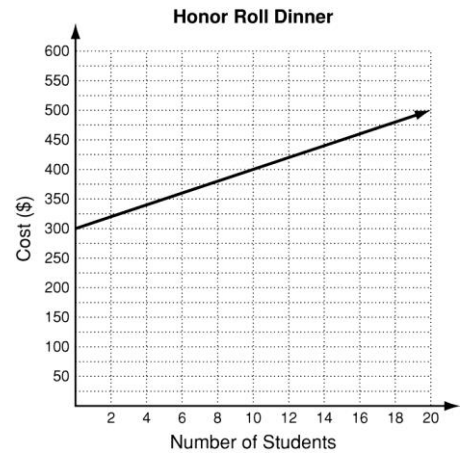
Name: \_\_\_\_\_ Date: \_\_\_\_\_ Block: \_\_\_\_\_

1) The cost of food for an honor roll dinner is \$300 plus \$10 per student. The cost of the food as a function of the number of students is shown in the graph. Write the correct answer.

a) Write an equation that represents the cost as a function of the number of students.

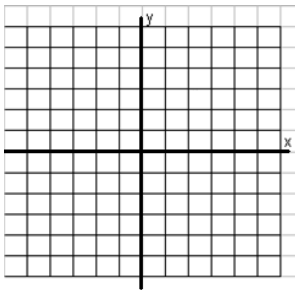
b) Identify the slope and y-intercept and describe their meanings.

c) Find the cost of the food for 50 students.

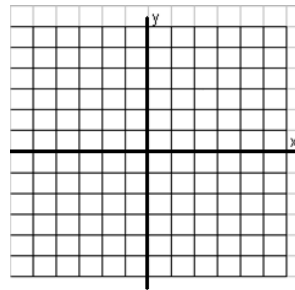


**Graph the line given the slope and y-intercept.**

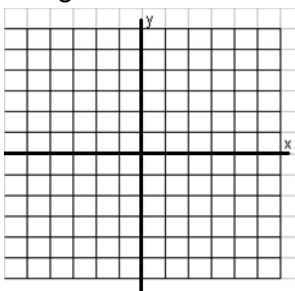
2) slope = 4; y-intercept = -3



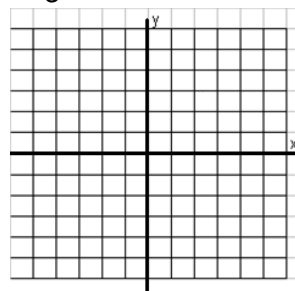
3) slope = -2; y-intercept = 0



4) slope =  $-\frac{1}{3}$ ; y-intercept = 6



5) slope =  $\frac{2}{3}$ ; y-intercept = 2



Write the equation that describes the line in slope-intercept form.

6) slope =  $-4$ ;  $(1, -3)$  is on the line

7) slope =  $\frac{1}{2}$ ;  $(-8, -5)$  is on the line

Write each equation in slope-intercept form.

8)  $x - y = 2$

9)  $-2y = 3x - 4$

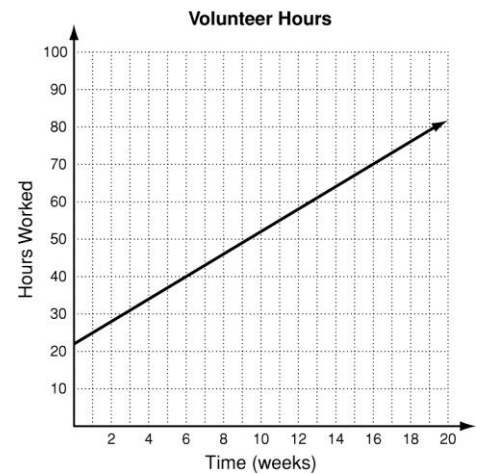
10)  $5x - 2y = 10$

11) Daniel works as a volunteer in a homeless shelter. So far, he has worked 22 hours, and he plans to continue working 3 hours per week. His hours worked as a function of time is shown in the graph.

a) Write an equation that represents the hours Daniel will work as a function of time.

b) Identify the slope and  $y$ -intercept and describe their meanings.

c) Find the number of hours worked after 16 weeks.



12) The number of students in a school has been increasing at a constant rate. The table shows the number of students in the school for certain numbers of years since 1995.

a) Write the equation in slope-intercept form.

Years Since 1995	Number of Students
5	124
10	130

b) Assuming the rate of change remains constant, how many students will be in the school in 2010?

**Write the equation that describes the line in slope-intercept form.**

13) (2, 1) and (0, -7) are on the line

14) (-6, -6) and (2, -2) are on the line

15) The cost of internet access at a cafe is a function of time. The costs for 25 and 40 minutes are shown.

<b>Time (min)</b>	25	40
<b>Cost (\$)</b>	7.25	9.80

a) Write an equation in slope-intercept form that represents the function.

b) Then find the cost of surfing the web at the cafe for one hour.