

Algebra 1 Homework – 4-6 and 4-7

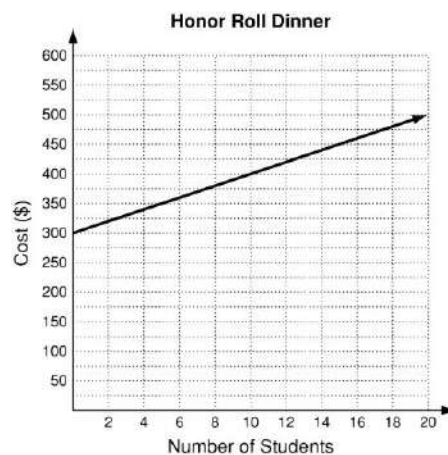
Name: _____ Date: _____ Block: _____

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.

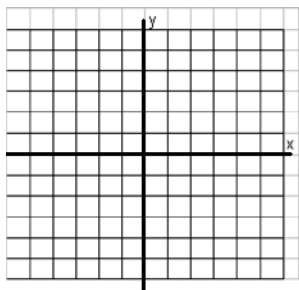
b) Identify the slope and y-intercept and describe their meanings.

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

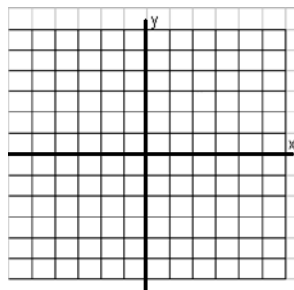


Graph the line given the slope and y-intercept.

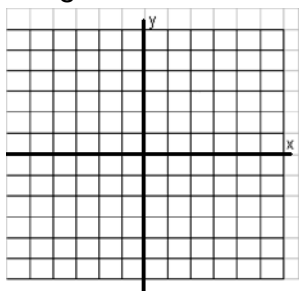
2) slope = 4; y-intercept = -3



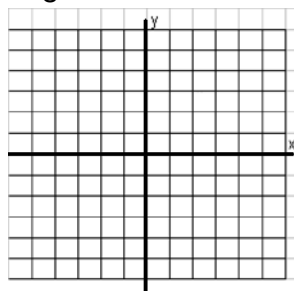
3) slope = -2; y-intercept = 0



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) $-2y = 3x - 4$

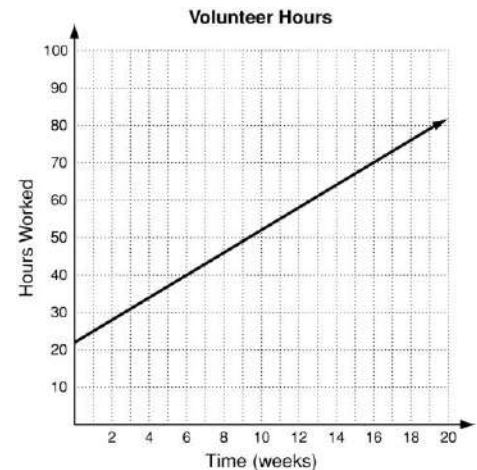
10) $5x - 2y = 10$

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.

Time (min)	25	40
Cost (\$)	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.