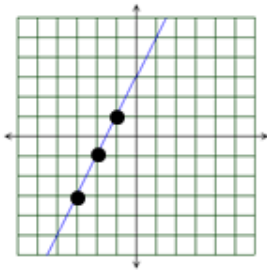
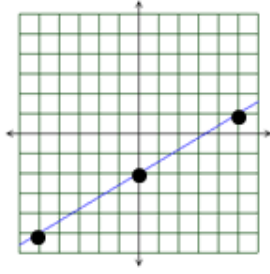


Algebra 1 UNIT 2 CHAPTER REVIEW

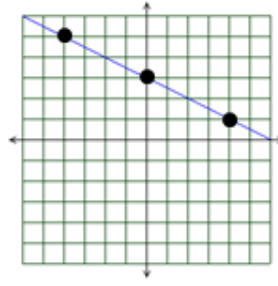
1. Find the slope of each line.



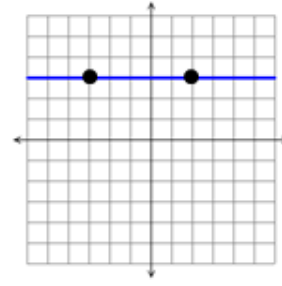
a.  $m =$  \_\_\_\_\_



b.  $m =$  \_\_\_\_\_



c.  $m =$  \_\_\_\_\_



d.  $m =$  \_\_\_\_\_

Circle the correct answer

2. Find the slope of the line through  $(2, -9)$  and  $(12, 1)$

[A]  $\frac{5}{6}$

[B]  $-\frac{5}{4}$

[C]  $-\frac{4}{5}$

[D] 1

3. Find the slope of the line through  $(-9, 11)$  and  $(3, 4)$

[A]  $\frac{7}{12}$

[B]  $-\frac{12}{7}$

[C]  $\frac{12}{7}$

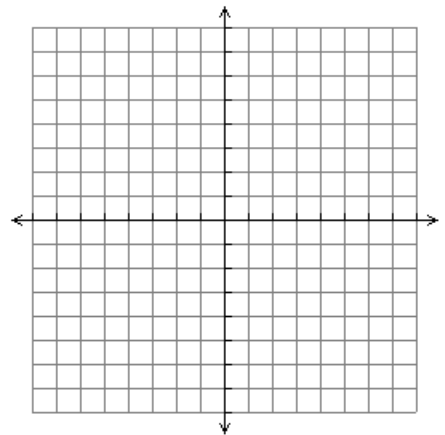
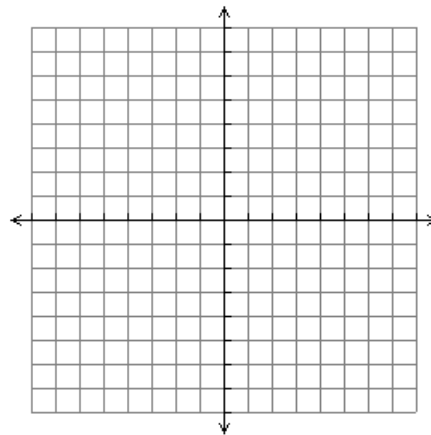
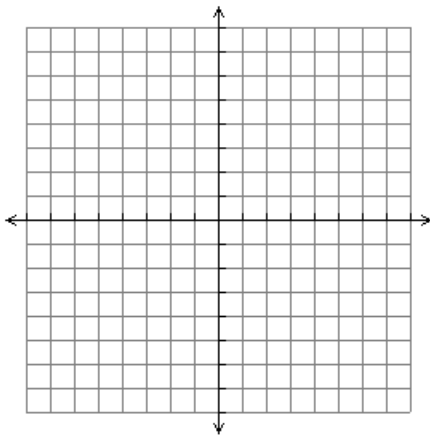
[D]  $-\frac{7}{12}$

4. Graph each line.

a.  $y = \frac{2}{5}x - 1$

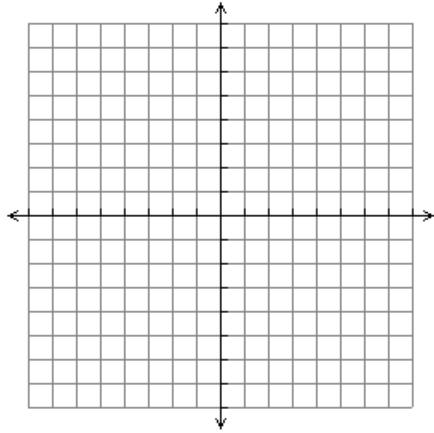
b.  $y = -\frac{1}{3}x + 5$

c.  $x = 4$

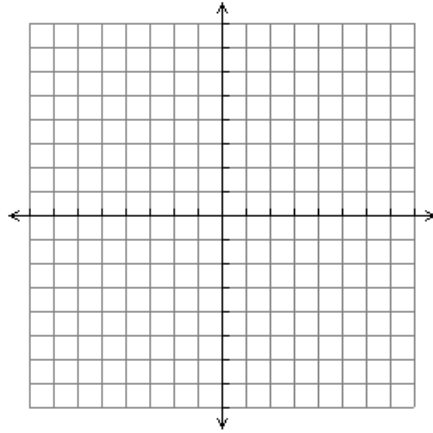


5. Graph each line.

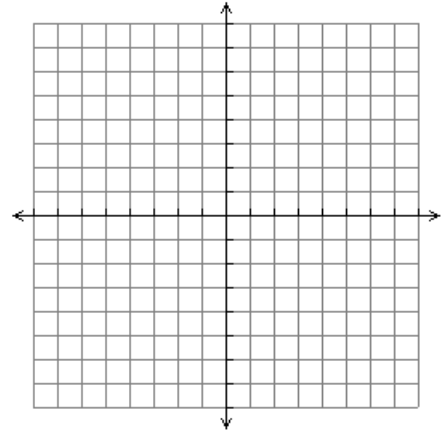
a.  $y - 3 = 2(x + 4)$



b.  $3x - 6y = 24$



c.  $4y = 20$



6. Which of the following is an equation of the line through  $(2, 8)$  and  $(-2, -12)$ ?

[A]  $y = \frac{1}{5}x + \frac{38}{5}$

[B]  $y = -\frac{1}{5}x + \frac{42}{5}$

[C]  $y = 5x - 2$

[D]  $y = -5x + 2$

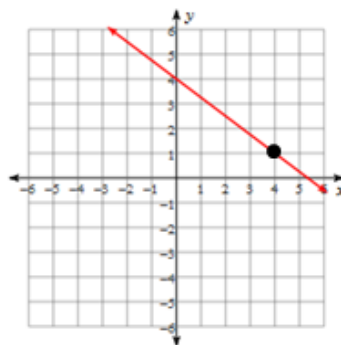
7. Katie must complete 20 hours of exercise in a week. She does 4 hours each day. Write a linear equation to represent the hours Katie has left after  $x$  days.

8. A mechanic shop charges \$50 to go to your house to diagnose your car and \$25 per hour to service the car. Identify the slope (rate) and  $y$ -intercept of this situation.

9. What is the equation of the horizontal line that passes through  $(2, -4)$ ?

10. What is the equation of the vertical line that passes through  $(3, -7)$ ?

11. What is the equation in point-slope form of the line shown in the graph, using the point  $(4, 1)$ ?



12. What is an equation in point-slope form of the line that passes through the point  $(2, -1)$  and has a slope of  $-5$ ?
13. What is an equation in point-slope form of the line that passes through  $(-6, 4)$  and  $(2, 20)$ ?

14. What is the y-intercept of the line  $y + 4 = -6(x + 1.5)$ ?

15. What are the x-intercept and the y-intercept of the graph of  $8x - 6y = -48$ ?

[A] x-intercept: 8; y-intercept:  $-6$       [B] x-intercept:  $-8$ ; y-intercept: 6

[C] x-intercept: 6; y-intercept:  $-8$       [D] x-intercept:  $-6$ ; y-intercept: 8

16. Write the equation in slope-intercept form of the line that has x-intercept 3 and y-intercept 4?

17. What is the equation in standard form of the line

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

[A]  $x - 3y = -6$

[B]  $x = 3y - 6$

[C]  $3y = x + 6$

[D]  $3y - x = 6$

18. a) Nancy has \$41 to spend on a collection of gel pens and colored flair markers. Gel pens cost \$2 each and colored flair markers cost \$3. What equation in standard form determines the x number of gel pens and the number y of colored flair markers she can buy?
- b) For the situation in the previous problem, which of the following represents a possible combination of gel pens and colored flair markers that Nancy can buy?
- A)  $(-5, 17)$    B)  $(7, 9)$    C)  $(2.5, 12)$    D)  $(2, 3)$

19. Determine whether the lines are parallel, perpendicular, or neither.

A)  $y = 3x + 1$

$2y = -6x + 8$

B)  $5x + 3y = 12$

$y = \frac{3}{5}x + 1$

C)  $y = -7x + 2$

$y + 7x = 10$

20. Which lines are parallel to  $y - 3 = 5(x + 4)$ . Select all that apply.

[A]  $y + 7 = -5(x - 1)$

[B]  $y = 5x - 3$

[C]  $10x - 2y = 40$

[D]  $y = -\frac{1}{5}x + 4$

21. Write the equation in slope-intercept form of the line that passes

through  $(14, -3)$  and is parallel to the graph of  $y = -\frac{2}{7}x + 4$