

Show all work. Write your answers in the column at right.

1. Clearly label each of the following vocabulary terms on the diagram.

- |                                |                   |
|--------------------------------|-------------------|
| a. Cartesian Coordinate System | c. y-axis         |
| b. x-axis                      | d. origin         |
|                                | e. point $(-2,1)$ |

2. Write the equation in standard form.

$$-3y = 4x + 5$$

3. Find the x-intercept and y-intercept. Next, use the intercepts to graph.

$$3x - 2y = 6$$

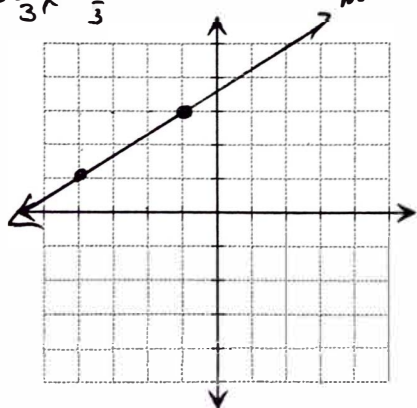
Find the slope using the given information.

4.  $\left(2, \frac{3}{4}\right)$  and  $\left(-1, \frac{5}{4}\right)$   $\frac{1/2}{-3}$   
 $\frac{1}{2} \div -3$   
 $\frac{1}{2} \cdot -\frac{1}{3}$

5.  $4y - 3 = 0$

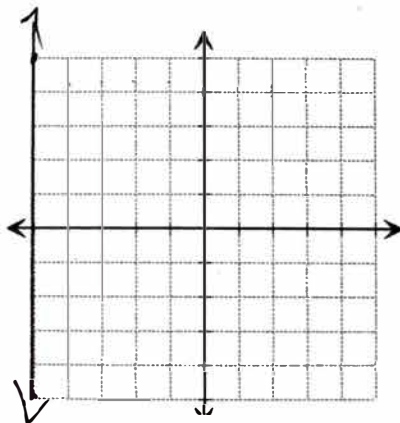
6. Graph the following.

Line through the point  $(-4,1)$  that is parallel to the line  $2x - 3y = 5$   
 $y = \frac{2}{3}x - \frac{5}{3}$   
 $m = \frac{2}{3}$



7. Graph the following.

$$x = -5$$

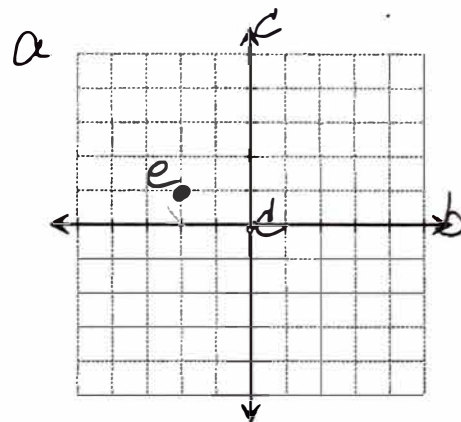


8. Write an equation in slope-intercept form of the line that has a

slope of  $-\frac{3}{8}$  and a y-intercept of  $\frac{1}{3}$ .

### Answers

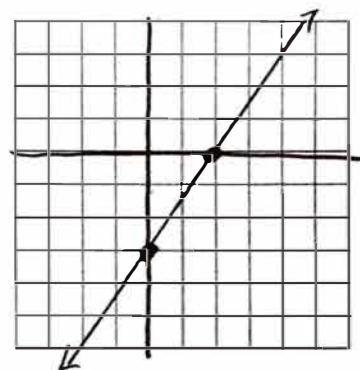
1. complete in space below



2.  $4x + 3y = -5$

3. x-intercept  $(2, 0)$

y-intercept  $(0, -3)$



4.  $m = -\frac{1}{6}$

5.  $m = 0$

6. graph on grid on left

7. graph on grid on left

8.  $y = -\frac{3}{8}x + \frac{1}{3}$

9. Write an equation in **standard form** of the line that passes through

$(3,4)$  and  $(-2,-6)$ .

$$m = \frac{-6-4}{-2-3} = \frac{-10}{-5} = 2$$

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

$$y-4 = 2x-6$$

$$y = 2x-2$$

10. Write an equation in **slope-intercept form** of the line that has an x-intercept at 3 and a y-intercept at -1.  $(3,0)$   $(0,-1)$

$$m = \frac{-1-0}{0-3} = \frac{-1}{-3} = \frac{1}{3}$$

11. Write an equation of a line that goes through  $(1,-5)$  and is **parallel** to the y-axis.

12. Write an equation in **slope intercept form** of the line passing through  $(3,-4)$  and **perpendicular** to  $y+6=3(x-1)$ .  $m=3$   $\perp m = -\frac{1}{3}$

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

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

Choose the letter of the vocabulary term or phrase that **best describes** the example provided.

13.  $y = -\frac{7}{3}x + 1$  and  $y = \frac{3}{7}x + 8$

A. x-intercept

14.  $y = -1$

B. parallel lines

15.  $(2,0)$

C. vertical line

16.  $y-2=3(x-1)$

D. perpendicular lines

17.  $2x+3y=7$

E. slope-intercept form

18.  $y = \frac{1}{2}x + 8$  and  $y = \frac{1}{2}x - 2$

A. standard form

19.  $y = \frac{2}{5}x + \frac{11}{3}$

G. horizontal line

20.  $(0,-3)$

H. y-intercept

21.  $x = 3$

N. point-slope form

## Answers

9.  $2x - y = 2$

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

11.  $x = 1$

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

13. D

14. G

15. A

16. I

17. F

18. B

19. E

20. H

21. C