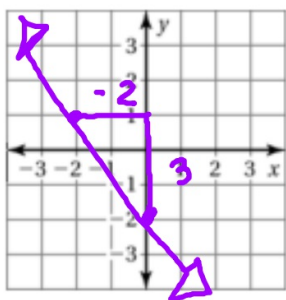
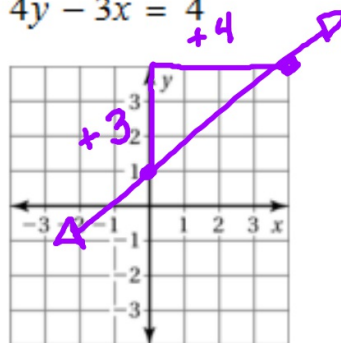


$y = mx + b$  Solve for  $y$ . Then graph the equation. Slope,  $y$ -int

1.  $3x + 2y = -4$



2.  $4y - 3x = 4$



$3x + 2y = -4$

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

Slope

$y = \left(\frac{-3}{2}\right)x - 2$

↖  $y$ -int

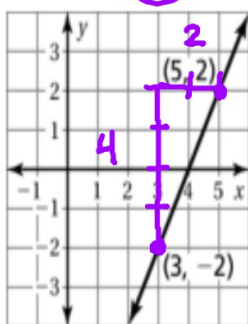
$4y - 3x = 4$

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

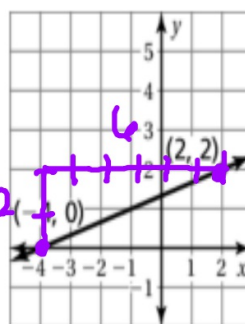
Slope  $y = \left(\frac{3}{4}\right)x + 1$

↖  $y$ -int

Find the slope of the line.



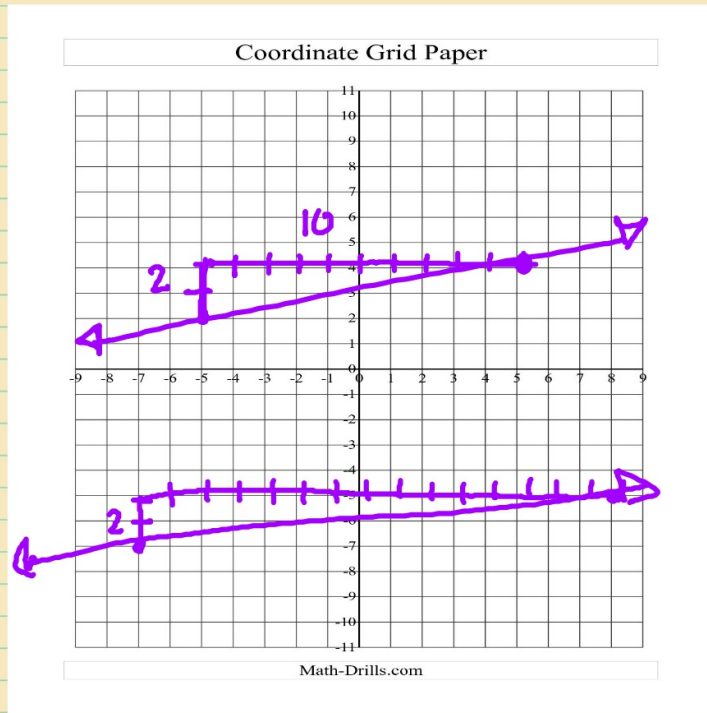
Slope =  $\frac{4}{2}$  or 2



Slope =  $\frac{2}{6} = \frac{1}{3}$

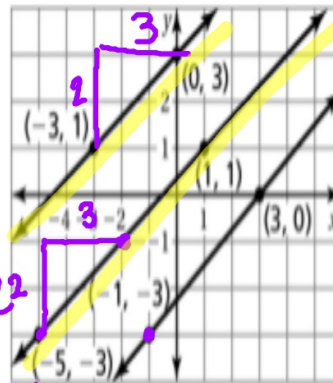
5. Which is steeper, a hill that rises 2 feet for every 10 feet of run, or a hill that rises 2 feet for every 15 feet of run? Explain.

$$\frac{2}{10} > \frac{2}{15}$$



6. Which two lines are parallel? Explain.

The first 2 lines are parallel because they have the same slope of  $\frac{2}{3}$



$$y = mx + b$$

Find the slope and the y-intercept of the graph of the linear equation.

7.  $y = -2x - 1$

8.  $y - \frac{1}{3}x = 0$

9.  $y + 2 = \frac{3}{4}x$

7.) slope =  $-\frac{2}{1}$   
y-int =  $-1$

8.)  $y = \frac{1}{3}x + 0$   
slope =  $\frac{1}{3}$   
y-int =  $0$

9.)  $y = \frac{3}{4}x - 2$   
slope =  $\frac{3}{4}$   
y-int =  $-2$

10. Explain how to find the x-intercept of the graph of  $y = 4x - 2$ .

put 0 in  
for(y) to →  
solve for(x)

$$y = 4x - 2$$
$$\uparrow$$
$$0 = 4x - 2$$
$$+2 \quad +2$$

$$\frac{2}{4} = 4x$$

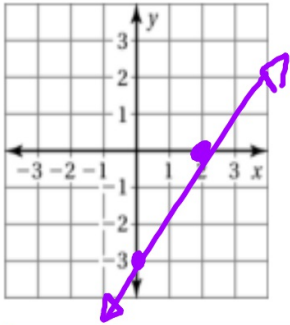
$$\frac{1}{2} = x$$

(the x-int is  $\frac{1}{2}$ .  
this is where the  
line will cross on  
the x-axis)

$$y = mx + b$$

Find the x-intercept and the y-intercept. Graph the equation.

11.  $3x - 2y = 6$



$$3x - 2y = 6$$

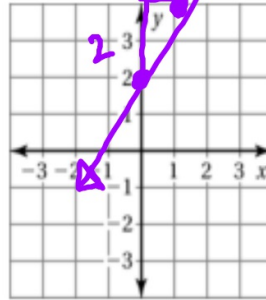
$$\frac{-2y}{-2} = \frac{-3x + 6}{-2}$$

Slope

$$y = \frac{3}{2}x - 3$$

y-int

12.  $2x - y = -2$



$$2x - y = -2$$

$$\frac{-y}{-1} = \frac{-2x - 2}{-1}$$

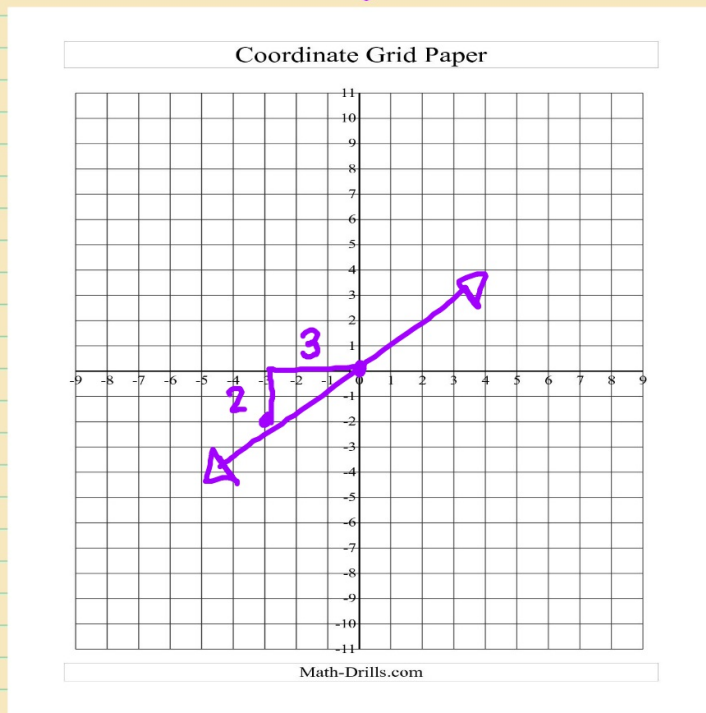
$$y = 2x + 2$$

Slope

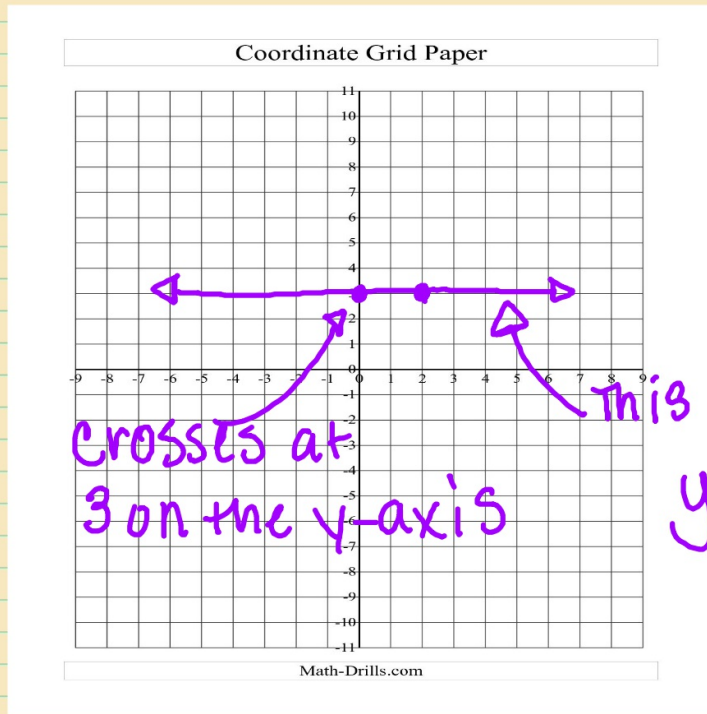
y-int

13.  $(-3, -2), (0, 0)$

$$y = \frac{2}{3}x + 0$$



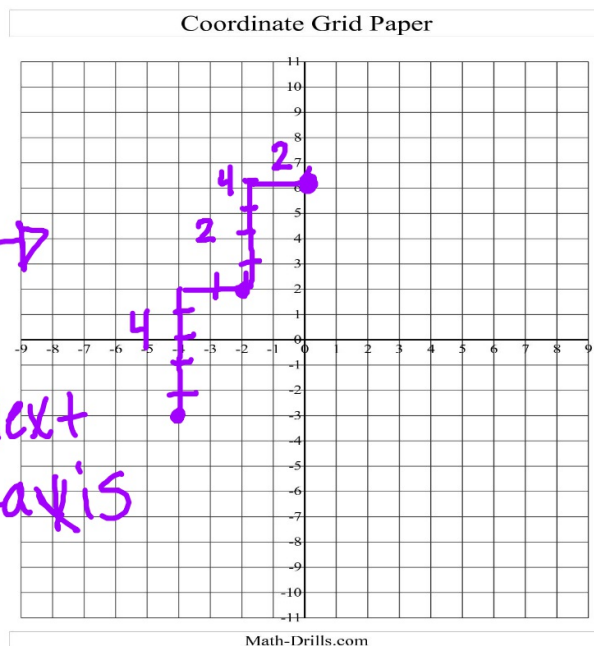
14.  $(0, 3), (2, 3)$



15.  $(-4, -3), (-2, 2)$

$$y = \frac{4}{2}x + 6$$

Keep using the  $\rightarrow$   
slope to  
find the next  
point on y-axis



16.  $(9, -5), (6, 4)$

$$y = -3x + 22$$

17. The graph shows the relationship between temperature  $y$  (in degrees Fahrenheit) and altitude  $x$  (in thousands feet).

a. Find and interpret the slope of the graph.

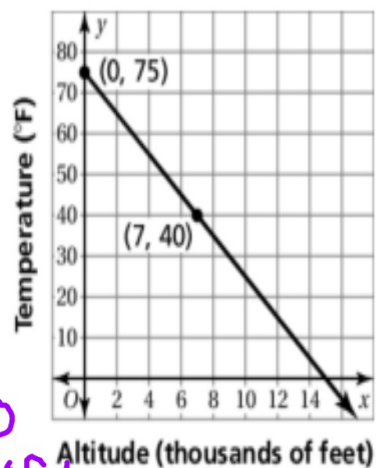
temp. drops  $5^\circ\text{F}$  every 1000 ft

b. Write an equation of the line.

$$y = -5x + 75$$

c. Interpret the  $x$ -intercept of the graph.

$x$ -int is 15. Temp is 0 at altitude of 15,000 ft



d. What is the temperature at 11,000 feet?

$20^\circ\text{F}$

