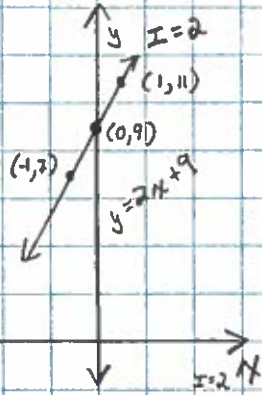


A #22 p. 286-288 #3-8 (Write the equation and graph using 3 points),  
#10-23, 27-29, 45-47

Key

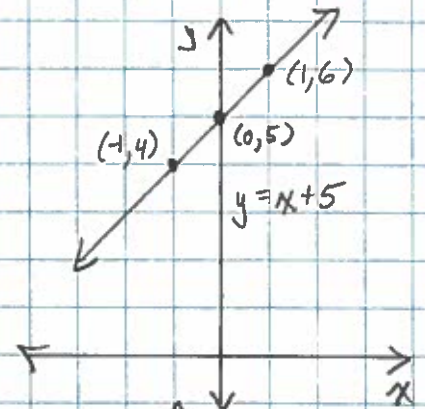
3. slope: 2  
y-intercept: (0, 9)

$$y = 2x + 9$$



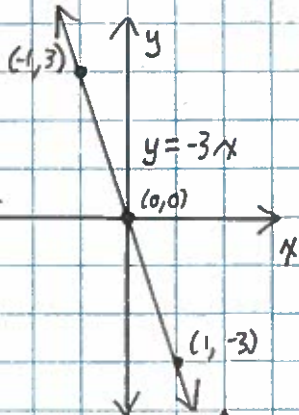
4. slope: 1  
y-intercept: (0, 5)

$$y = x + 5$$



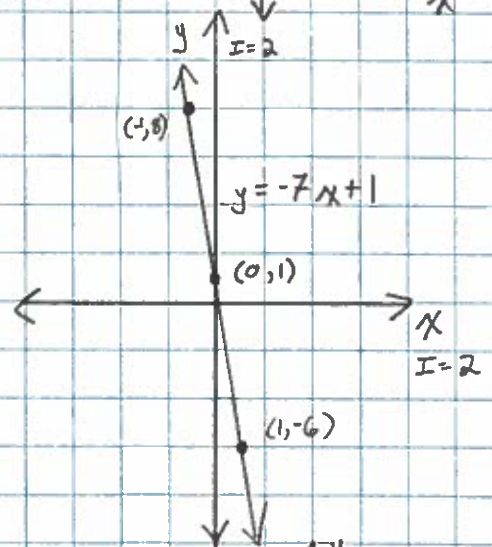
5. slope: -3  
y-intercept: (0, 0)

$$y = -3x$$



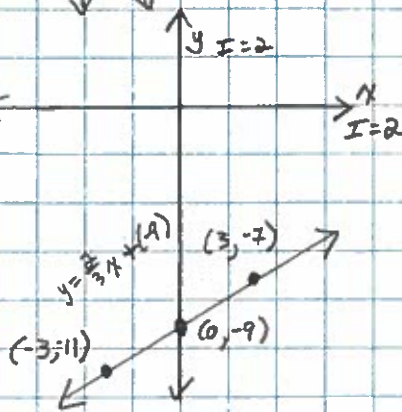
6. slope: -7  
y-intercept: (0, 1)

$$y = -7x + 1$$



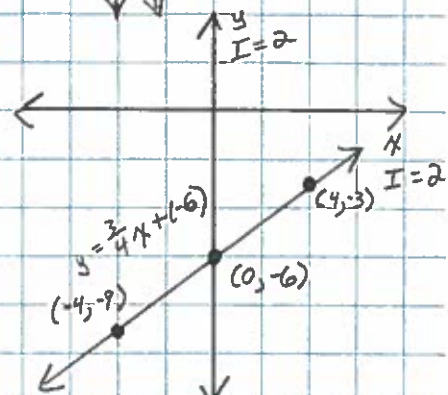
7. slope:  $\frac{2}{3}$   
y-intercept: (0, -9)

$$y = \frac{2}{3}x + (-9)$$



8. slope:  $\frac{3}{4}$   
y-intercept: (0, -6)

$$y = \frac{3}{4}x + (-6)$$



10.  $m = \frac{\Delta y}{\Delta x} = \frac{3}{3}$   
 $m = 1$   
y-int: (0, -4)

$$y = x + (-4)$$

11.  $m = \frac{\Delta y}{\Delta x} = \frac{-1}{2}$   
 $m = -\frac{1}{2}$   
y-int: (0, 0)

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

12.  $m = \frac{\Delta y}{\Delta x} = \frac{-3}{1}$   
 $m = -3$   
y-int: (0, 4)

$$y = -3x + 4$$

13.  $m = \frac{\Delta y}{\Delta x} = \frac{2}{3}$   
 $m = \frac{2}{3}$   
y-int: (0, -8)

$$y = \frac{2}{3}x + (-8)$$

14.  $m = \frac{\Delta y}{\Delta x} = \frac{-1}{1}$   
 $m = -1$   
y-int: (0, -3)

$$y = -x + (-3)$$

15.  $m = \frac{\Delta y}{\Delta x} = \frac{-2}{1}$   
 $m = -2$   
y-int: (0, -2)

$$y = -2x + (-2)$$

16. Error: slope and y-coordinate of the y-intercept are put in the wrong place in the equation.

Correction:  $m = 2$  y-int: (0, 7)

$$y = 2x + 7$$

# A #22 - continued

Key

p. 286-288 #17-23, 27-29, 45-47

17. Error: The order is wrong in the slope formula.

Correction:  $(0, 4), (5, 0)$

$$m = \frac{\Delta y}{\Delta x} = \frac{0-4}{5-0} = -\frac{4}{5}$$

$$y = -\frac{4}{5}x + 4$$

18.  $m = \frac{\Delta y}{\Delta x} = \frac{1}{3}$

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

y-int:  $(0, 2)$

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

19.  $m = \frac{\Delta y}{\Delta x} = \frac{4}{1}$

$$m = 4$$

y-int:  $(0, 4)$

$$y = 4x + 4$$

20.  $m = \frac{\Delta y}{\Delta x} = -\frac{1}{4}$

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

y-int:  $(0, 3)$

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

21.  $m = \frac{\Delta y}{\Delta x} = \frac{-4}{3}$

$$m = -\frac{4}{3}$$

y-int:  $(0, 0)$

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

22.  $m = \frac{\Delta y}{\Delta x} = \frac{4}{4}$

$$m = 1$$

y-int:  $(0, -4)$

$$y = x + (-4)$$

23.  $m = \frac{\Delta y}{\Delta x} = \frac{4}{2}$

$$m = 2$$

y-int:  $(0, -2)$

$$y = 2x + (-2)$$

27.  $(0, 4), (8, 3.5)$

$$m = \frac{\Delta y}{\Delta x} = \frac{4-3.5}{0-8} = -\frac{1}{16}$$

y-int:  $(0, 4)$

$$y = -\frac{1}{16}x + 4$$

28.  $(0, 5), (1.5, 1)$

$$m = \frac{\Delta y}{\Delta x} = \frac{5-1}{0-1.5} = -\frac{4}{1.5} = -\frac{8}{3}$$

$$m = -\frac{8}{3}$$

$$y = -\frac{8}{3}x + 5$$

29.  $(-6, 0), (0, -24)$

$$m = \frac{\Delta y}{\Delta x} = \frac{0-(-24)}{-6-0} = -\frac{24}{6} = -4$$

$$m = -4$$

$$y = -4x + (-24)$$

45. #48 = Initial fee (y-coordinate of y-intercept)

$(0, 48)$

#44 per month = Rate of change (slope)

C = # of dollars (Total cost)  $(m, C)$

m = # of months

a.  $C = 44m + 48$  where C

is the total cost after m months.

b.  $m = 6$   $C = 44m + 48$

$$C = 44(6) + 48$$

$$C = 264 + 48$$

$$C = 312$$

It will cost \$312 to set-up and maintain the website for 6 months.

46. #3.99 per enlargement = Rate of change (slope)

#1.49 = Delivery charge (y-coordinate of y-intercept)

$(0, 1.49)$

T = # of dollars (Total cost)  $(E, T)$

E = # of enlargements

a.  $T = 3.99E + 1.49$  where T is the total cost of having E enlargements delivered.

b.  $E = 8$   $T = 3.99E + 1.49$

$$T = 3.99(8) + 1.49$$

$$T = 31.92 + 1.49$$

$$T = 33.41$$

It will cost \$33.41 to have 8 enlargements delivered.

47. #30 = Cost of tickets (y-coordinate of y-intercept)  $(0, 30)$

#3 per hour = Rate of change (slope)

T = # of dollars (Total cost)

h = # of hours parked  $(h, T)$

Equation:  $T = 3h + 30$  where T is the total cost of the tickets and parking for h hours.

Question:  $h = 4$   $T = 3h + 30$

$$T = 3(4) + 30$$

$$T = 12 + 30$$

$$T = 42$$

Answer: It will cost \$42 for the tickets and parking for 4 hours.