

3.5

Standard Form

Find the  $x$ - and  $y$ -intercepts of the graph of each equation.

1.  $x + y = 7$  **7; 7**

2.  $x - 3y = 9$  **9; -3**

3.  $2x + 3y = -6$  **-3; -2**

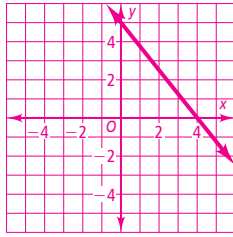
4.  $-4x - 2y = -8$  **2; 4**

5.  $5x - 4y = -12$   **$-\frac{12}{5}$ ; 3**

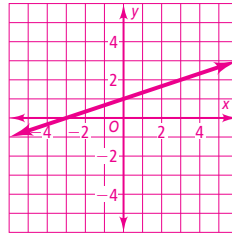
6.  $-2x + 7y = 11$   **$-\frac{11}{2}$ ;  $\frac{11}{7}$**

Draw a line with the given intercepts.

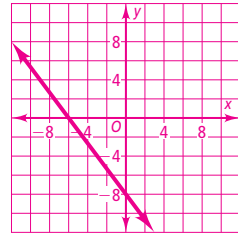
7.  $x$ -intercept: 4  
 $y$ -intercept: 5



8.  $x$ -intercept: -3  
 $y$ -intercept: 1

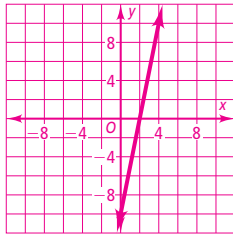


9.  $x$ -intercept: -6  
 $y$ -intercept: -8

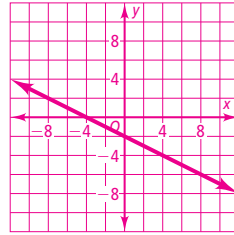


Graph each equation using  $x$ - and  $y$ -intercepts.

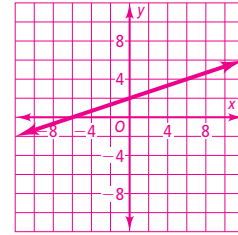
10.  $-5x + y = -10$



11.  $-3x - 6y = 12$



12.  $4x - 12y = -24$



For each equation, tell whether its graph is a *horizontal* or a *vertical* line.

13.  $y = -2$

**horizontal**

14.  $x = 0$

**vertical**

15.  $y = -0.25$

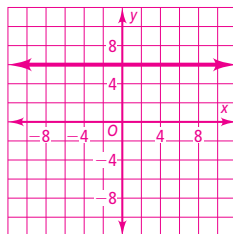
**horizontal**

16.  $x = -\frac{3}{5}$

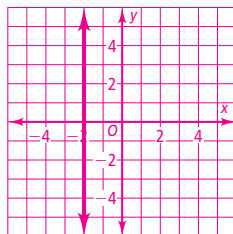
**vertical**

Graph each equation.

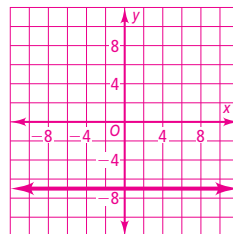
17.  $y = 6$



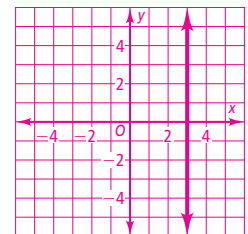
18.  $x = -2$



19.  $y = -7$



20.  $x = 3$



3.5

Standard Form

Write each equation in standard form using integers.

21.  $y = x - 4$   
 $x - y = 4$

22.  $y - 4 = 5(x - 8)$   
 $5x - y = 36$

23.  $y + 6 = -3(x + 1)$   
 $3x + y = -9$

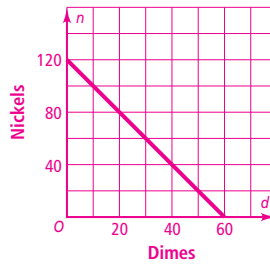
24.  $y = -\frac{3}{5}x + 2$   
 $3x + 5y = 10$

25.  $y = \frac{1}{2}x - 10$   
 $x - 2y = 20$

26.  $y - 3 = -\frac{7}{9}(x + 4)$   
 $7x + 9y = -1$

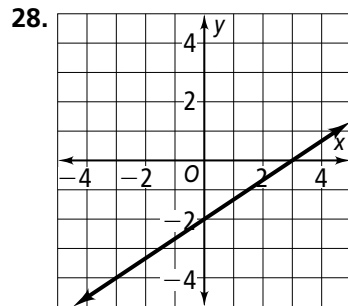
27. You have only nickels and dimes in your piggy bank. When you ran the coins through a change counter, it indicated you have 595 cents. Write and graph an equation that represents this situation. What are three combinations of nickels and dimes you could have?

$5n + 10d = 595$

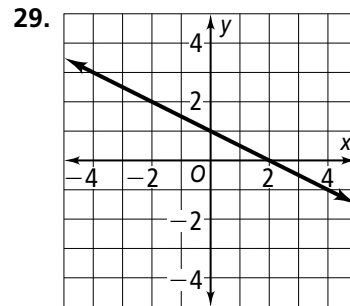


Answers may vary. Sample: 11 nickels and 54 dimes; 21 nickels and 49 dimes; 45 nickels and 37 dimes

For each graph, find the  $x$ - and  $y$ -intercepts. Then write an equation in standard form using integers.



3; -2;  $2x - 3y = 6$



2; 1;  
 $x + 2y = 2$

Find the  $x$ - and  $y$ -intercepts of the line that passes through the given points.

30.  $(4, -2), (5, -4)$   
 3; 6

31.  $(1, 1), (-5, 7)$   
 2; 2

32.  $(-3, 2), (-4, 10)$   
 $-\frac{11}{4}; -22$