

3.5

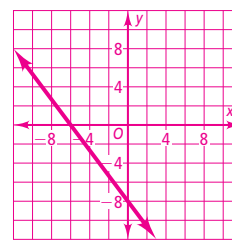
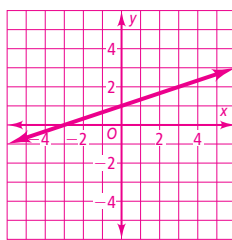
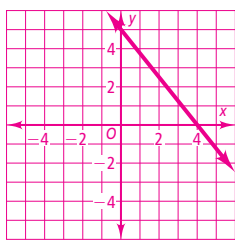
Standard Form

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

- |   |  |
|---|--|
| 1. $x + y = 7$ <b>7; 7</b>                              | 2. $x - 3y = 9$ <b>9; -3</b>                                       |
| 3. $2x + 3y = -6$ <b>-3; -2</b>                         | 4. $-4x - 2y = -8$ <b>2; 4</b>                                     |
| 5. $5x - 4y = -12$ <b><math>-\frac{12}{5}; 3</math></b> | 6. $-2x + 7y = 11$ <b><math>-\frac{11}{2}; \frac{11}{7}</math></b> |

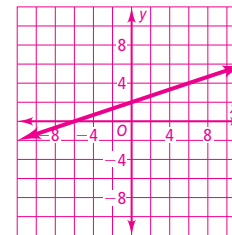
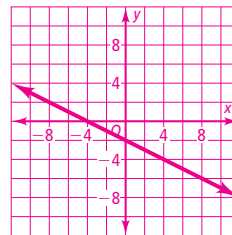
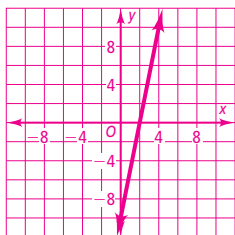
Draw a line with the given intercepts.

- |   |  |   |
|---|--|---|
| 7. $x$ -intercept: 4<br>$y$ -intercept: 5 | 8. $x$ -intercept: -3<br>$y$ -intercept: 1 | 9. $x$ -intercept: -6<br>$y$ -intercept: -8 |
|---|--|---|



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

- |                     |                     |                      |
|---------------------|---------------------|----------------------|
| 10. $-5x + y = -10$ | 11. $-3x - 6y = 12$ | 12. $4x - 12y = -24$ |
|---------------------|---------------------|----------------------|

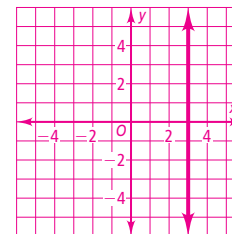
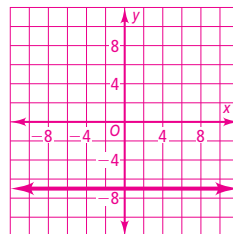
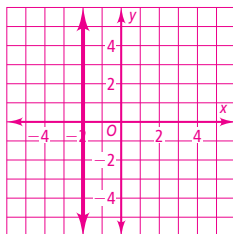
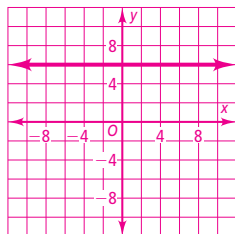


For each equation, tell whether its graph is a *horizontal* or a *vertical* line.

- |                                   |                                |                                      |   |
|-----------------------------------|--------------------------------|--------------------------------------|---|
| 13. $y = -2$<br><b>horizontal</b> | 14. $x = 0$<br><b>vertical</b> | 15. $y = -0.25$<br><b>horizontal</b> | 16. $x = -\frac{3}{5}$<br><b>vertical</b> |
|-----------------------------------|--------------------------------|--------------------------------------|---|

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.  $y = x - 4$

$x - y = 4$

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

$3x + y = -9$

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

$x - 2y = 20$

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

$5x - y = 36$

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

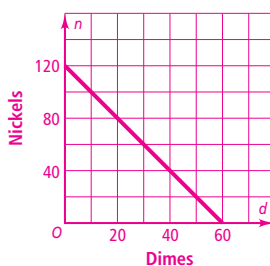
$3x + 5y = 10$

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

$7x + 9y = -1$

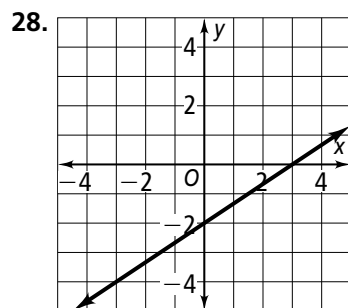
27. You have only nickels and dimes in your piggy bank. When you ran the coins through a change counter, it indicated you have 595 cents. Write and graph an equation that represents this situation. What are three combinations of nickels and dimes you could have?

$5n + 10d = 595$

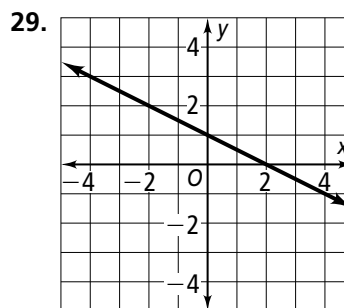


Answers may vary. Sample: 11 nickels and 54 dimes; 21 nickels and 49 dimes; 45 nickels and 37 dimes

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.  $(-3, 2), (-4, 10)$

$-\frac{11}{4}; -22$