For problems 1 - 6, sketch the graph of each of the following equations by first completing the given table, then plotting the points.

1.
$$y = x + 1$$

x	У
-3	
	0
2	

2.
$$y = -4x$$

x	у
_1	
4	
1	
	12

3.
$$2x + 3y = 6$$

_	
x	у
	$-\frac{1}{3}$
	0
0	

4. -4x + 2y = 1

x	у
-1	
	5
	$\overline{2}$
	2

5. -x + y = 6

x	у
-3	
-1	
0	

6.
$$-2x-5y-10=0$$

x	у
	-2
	-1
	0

For problems 7 – 17:

A. Write the equation in slope-intercept form; state the slope and *y*-intercept.

B. Sketch the graph of each of the following equations by using the slope and *y*-intercept.

7.
$$y = 2x$$

8. $y = -4x$
9. $y = -3x + 4$
10. $y = 4x + 3$
11. $y = 2x - 2$
12. $6x - 3y = 9$
13. $-2x - y = 8$
14. $10x + 5y = 20$
15. $-4x + 4y = 16$
16. $7x - 9y + 18 = 0$
17. $8x - 12y - 36 = 0$

For problems 18 – 31, sketch the graph of each of the following equations by first finding the *x*- and *y*-intercepts. If the graph passes through the origin, find a second point.

18. y = 2x19. $y = -\frac{5}{2}x$ 20. y = 2x+521. y = -9x-322. y = -5x+123. y = 12x-624. 3x+6y=1225. -4x-2y=1126. -6x+10y=3027. -7x+3y=2128. 9x-5y-18=029. -7x-5y-24=030. $\frac{7}{8}x+\frac{21}{16}y=\frac{7}{2}$ 31. $\frac{1}{12}x-\frac{5}{6}y=\frac{5}{3}$

For problems 32 - 39, sketch the graph of each of the following using the information that is given.

32. Horizontal line that passes through (0, -1)

- **33.** Horizontal line that passes through (4, 2.5)
- **34.** $y = \frac{1}{3}$
- **35.** y = -4
- **36.** Vertical line that passes through (3, 8)
- **37.** Vertical line that passes through (-3, 0)

38.
$$x = -\frac{8}{3}$$

39. *x* = 10