

## Chapter 6 answers

### 6.1

1. Yes

3. No

5. Yes

7.  $a = 0$

9.  $c = -\frac{2}{3}$

11.  $(-1, -5)$

13.  $(4, 4)$

15.  $(-\frac{3}{2}, 6)$

17.  $(-2, -\frac{11}{3})$

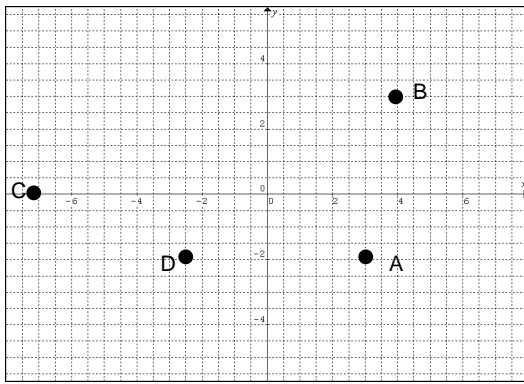
19.

$x$	$y$
-6	4
0	2
3	1
6	0

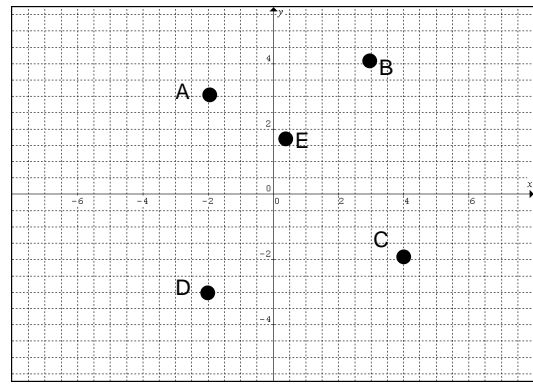
21.

$x$	$y$
-3	-4
9	4
0	-2
3	0

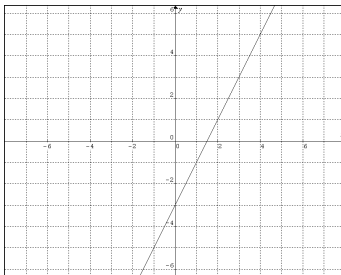
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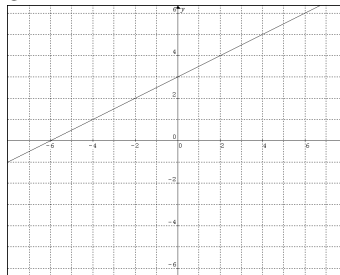
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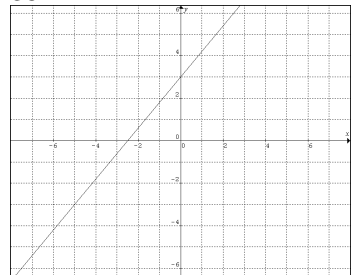
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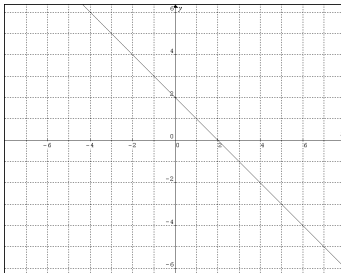
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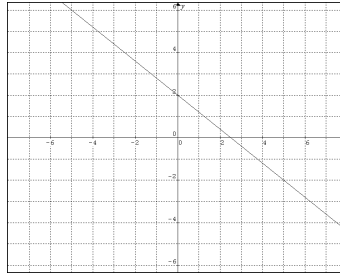
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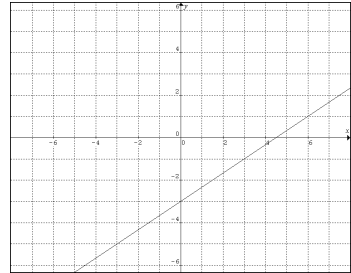
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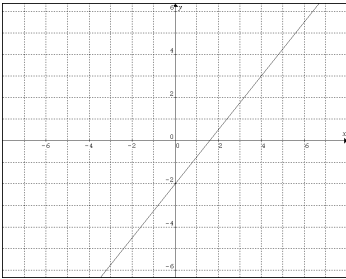
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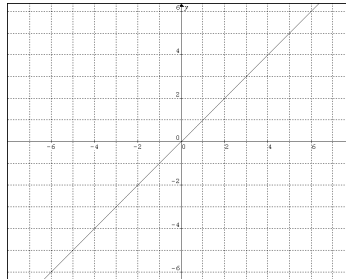
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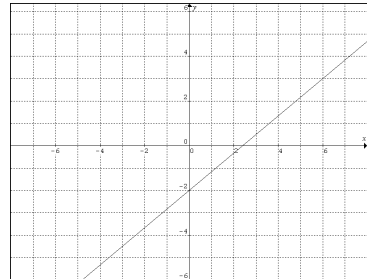
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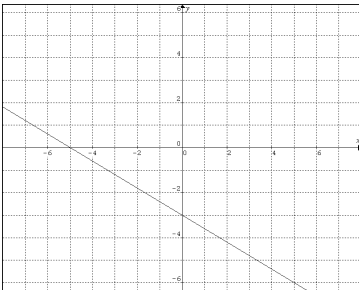
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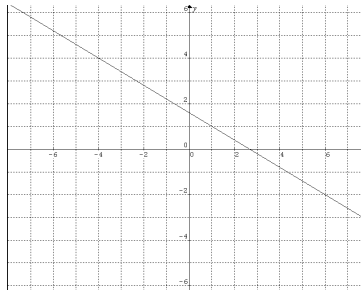
47.



41.



45.



## 6.2

1. (3, 0), (0, 2)

3. (-2, 0), (0, 4)

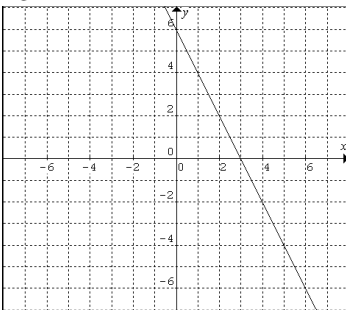
5. (8/3, 0), (0, 2)

7. (-4/7, 0), (0, -2)

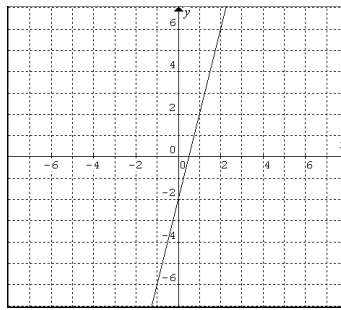
9. (4, 0), (0, -4)

11. No x-int, (0, -2)

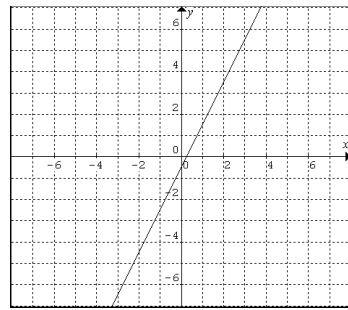
13.



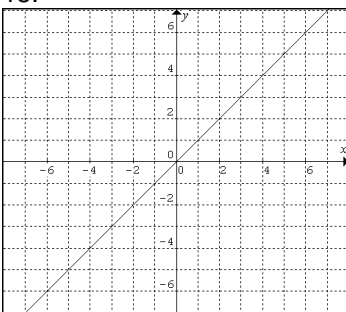
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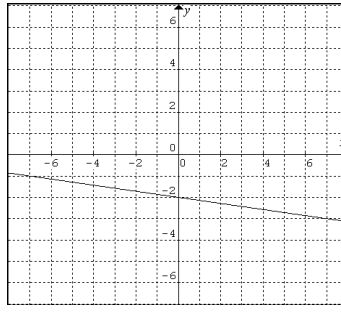
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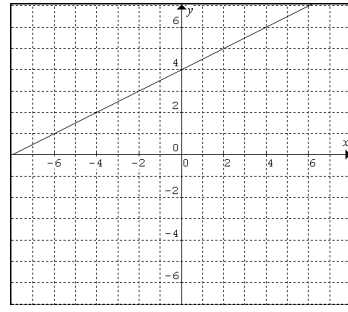
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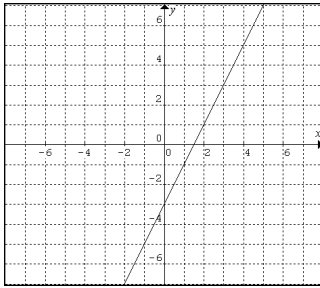
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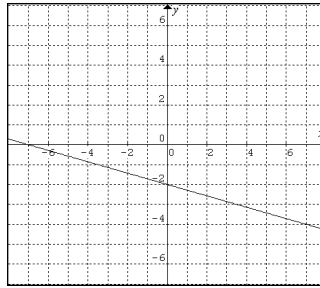
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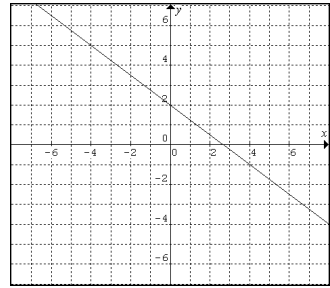
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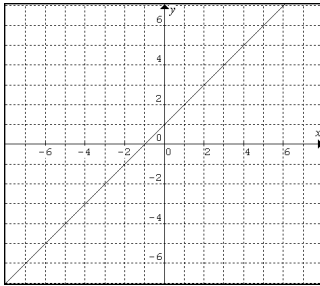
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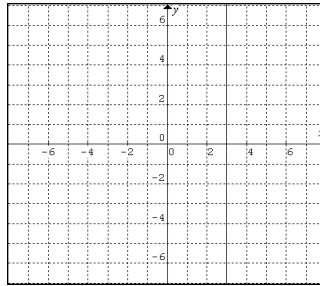
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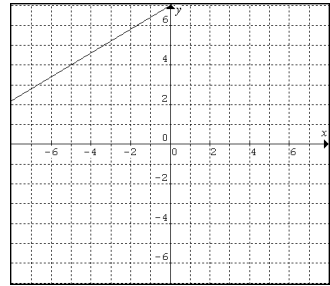
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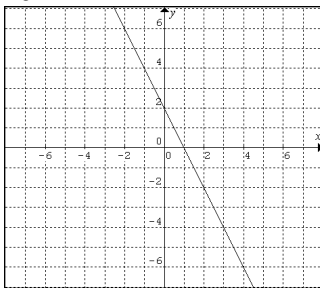
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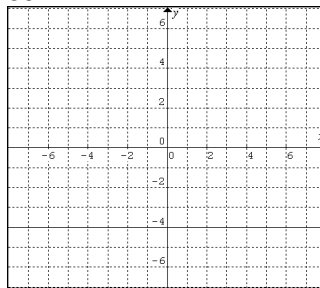
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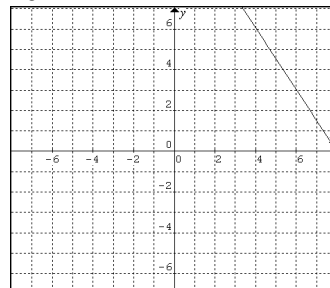
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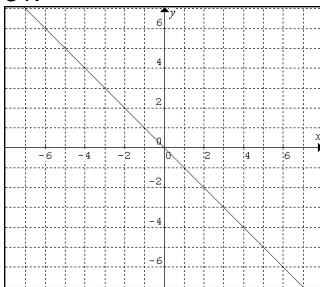
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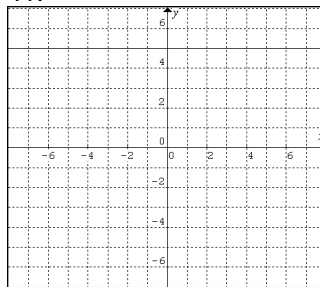
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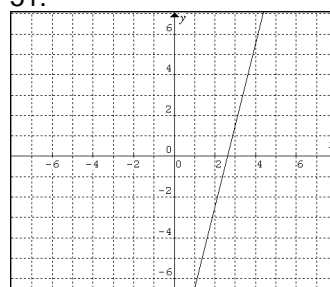
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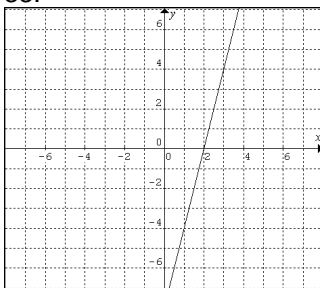
41.



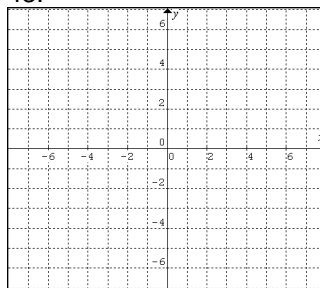
51.



33.

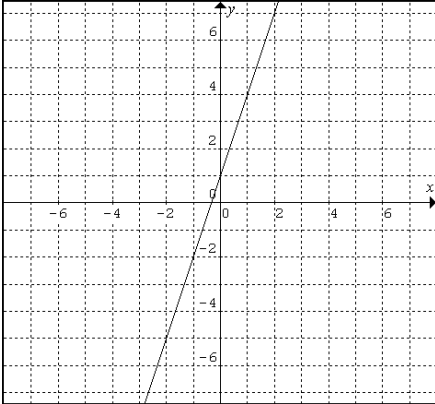


43.

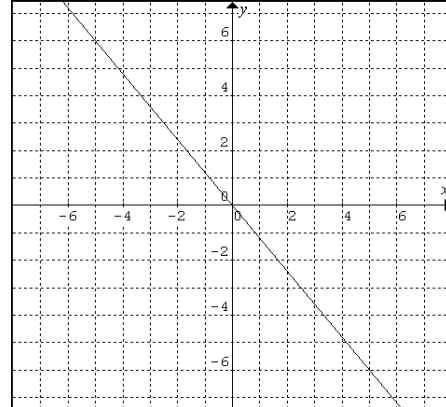


### 6.3

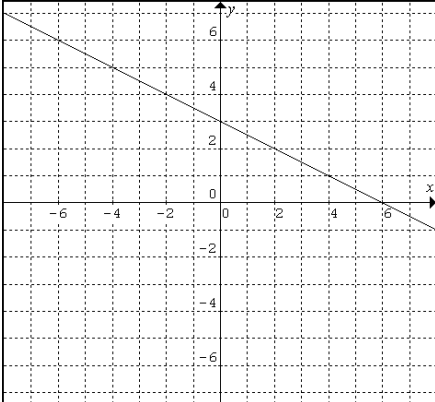
1.  $m = 1$       3.  $m = 1$       5.  $m = \frac{9}{7}$       7.  $m = 0$       9.  $m = \text{undefined}$   
11.  $m = -\frac{7}{5}$       13.  $m = -2$       15.  $m = \frac{9}{5}$       17.  $m = -\frac{1}{b}$       19.  $m = 2a - h$   
21.  $m = -3$ , y-int: (0, 2)      23.  $m = -\frac{1}{2}$ , y-int: (0, 5)      25.  $m = \frac{3}{2}$ , y-int: (0, 2)  
27.  $m = -\frac{7}{9}$ , y-int: (0, -2)      29.  $m = -1$ , y-int: (0,  $\frac{1}{3}$ )      31.  $m = \text{undef.}$ , y-int: none  
33.  $m = 3$ , x-int: ( $-\frac{1}{3}$ , 0), y-int: (0, 1)



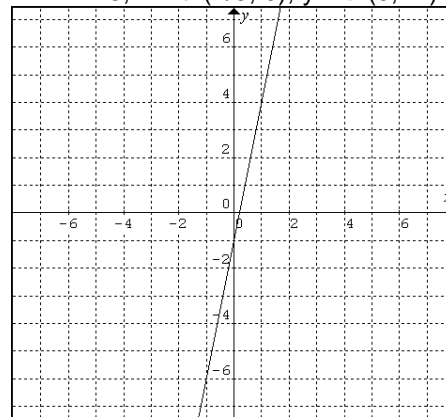
39.  $m = -\frac{6}{5}$ , x-int: (0, 0), y-int: (0, 0)



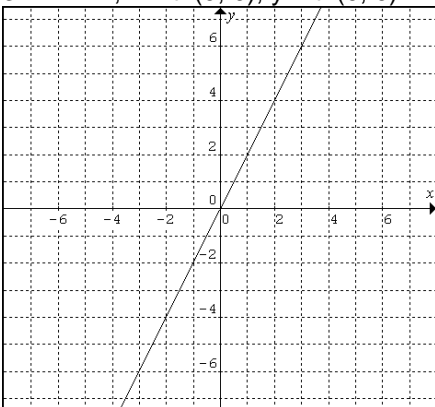
35.  $m = -\frac{1}{2}$ , x-int: (-6, 0), y-int: (0, 3)



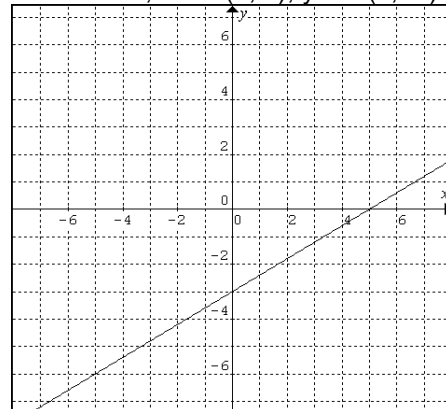
41.  $m = 5$ , x-int: ( $\frac{1}{5}$ , 0), y-int: (0, -1)



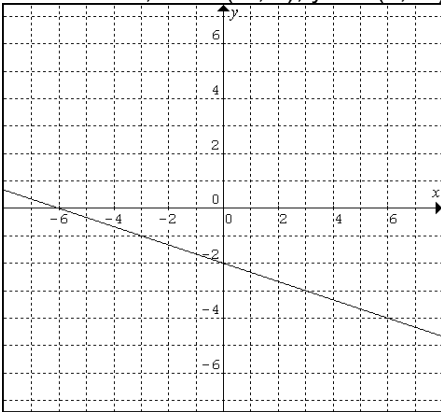
37.  $m = 2$ , x-int: (0, 0), y-int: (0, 0)



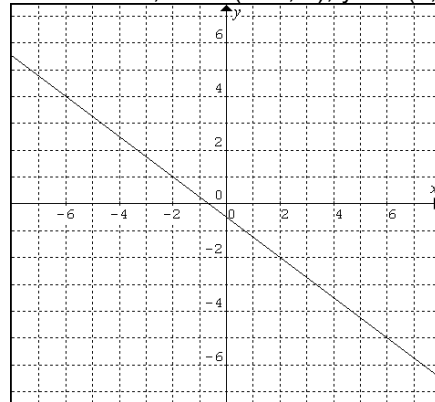
43.  $m = \frac{3}{5}$ , x-int: (5, 0), y-int: (0, -3)



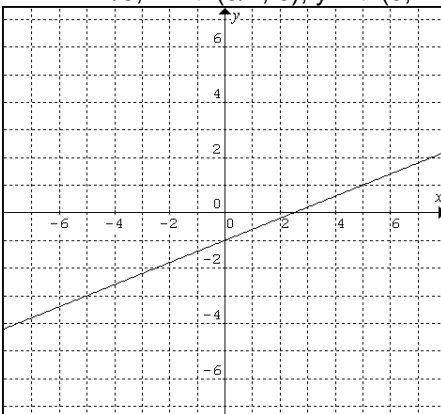
45.  $m = -1/3$ , x-int:  $(-6, 0)$ , y-int:  $(0, -2)$



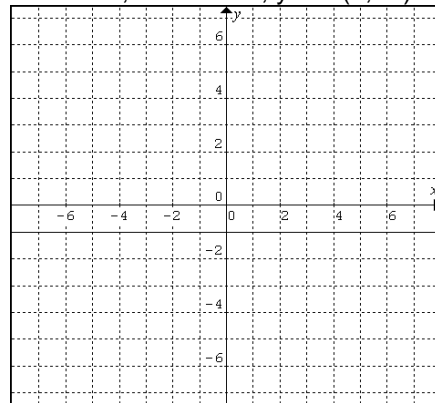
51.  $m = -3/4$ , x-int:  $(-2/3, 0)$ , y-int:  $(0, -1/2)$



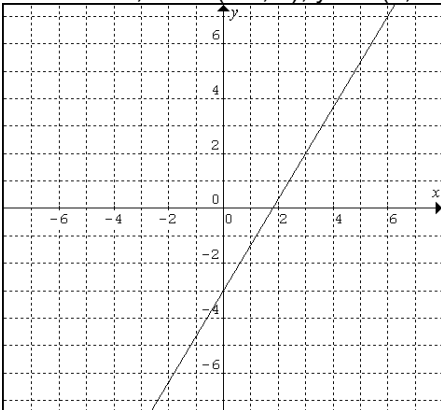
47.  $m = 2/5$ , x-int:  $(5/2, 0)$ , y-int:  $(0, -1)$



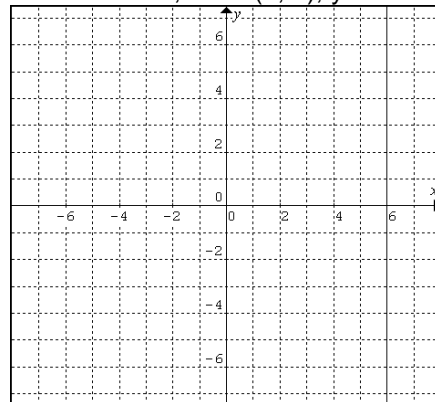
53.  $m = 0$ , x-int: none, y-int:  $(0, -1)$



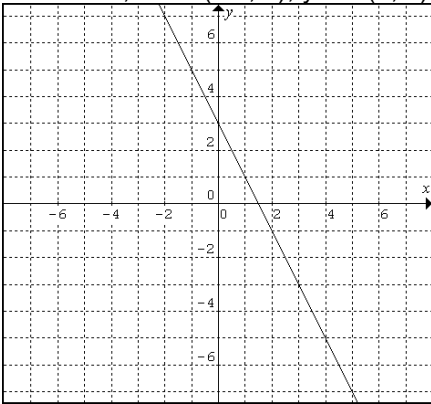
49.  $m = 5/3$ , x-int:  $(9/5, 0)$ , y-int:  $(0, -3)$



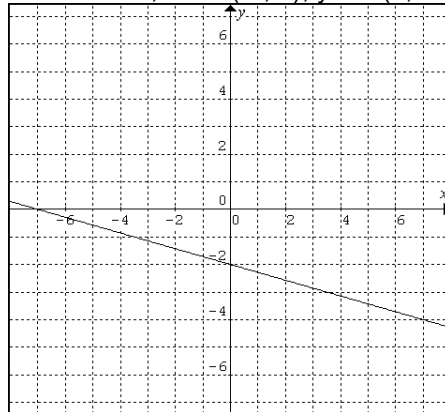
55.  $m = \text{undef}$ , x-int:  $(6, 0)$ , y-int: none



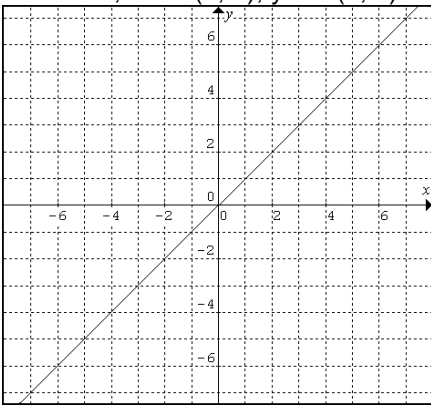
57.  $m = -2$ , x-int:  $(\frac{3}{2}, 0)$ , y-int:  $(0, 3)$



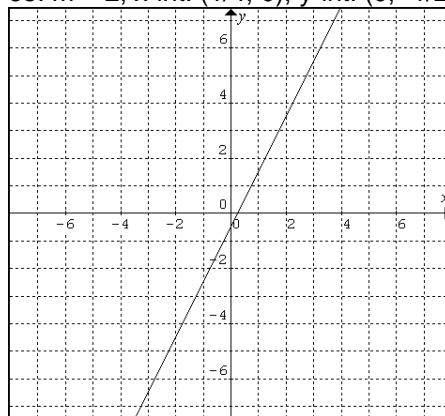
63.  $m = -2/7$ , x-int:  $(-7, 0)$ , y-int:  $(0, -2)$



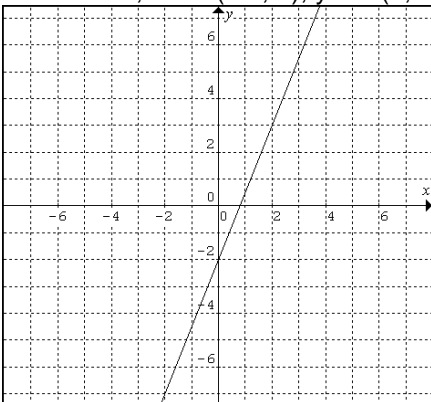
59.  $m = 1$ , x-int:  $(0, 0)$ , y-int:  $(0, 0)$



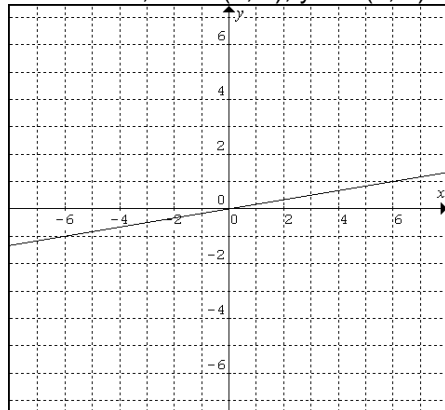
65.  $m = 2$ , x-int:  $(\frac{1}{4}, 0)$ , y-int:  $(0, -1/2)$



61.  $m = 5/2$ , x-int:  $(\frac{4}{5}, 0)$ , y-int:  $(0, -2)$

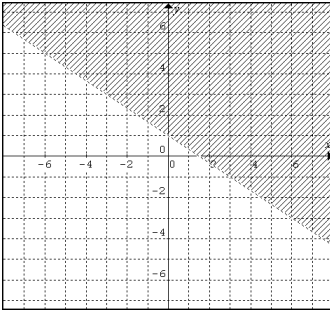


67.  $m = 1/6$ , x-int:  $(0, 0)$ , y-int:  $(0, 0)$



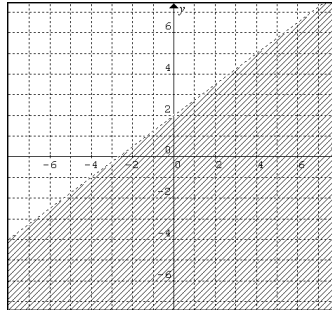
**6.4**

1. No  
11.



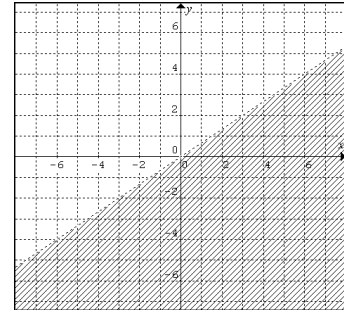
3. Yes

5. No  
19.

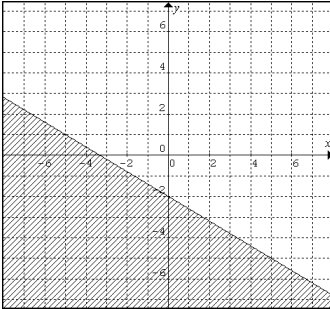


7. No

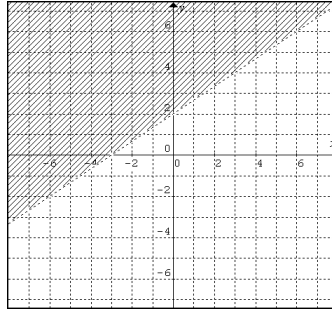
9. Yes  
27.



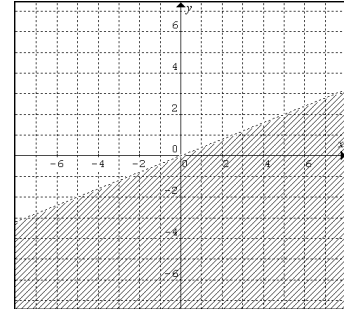
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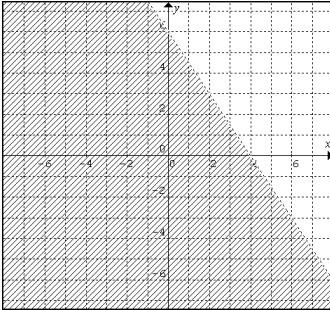
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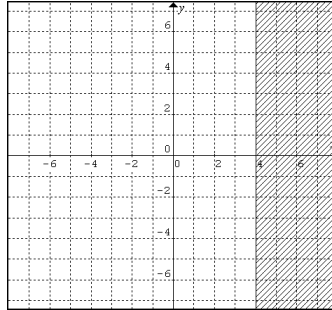
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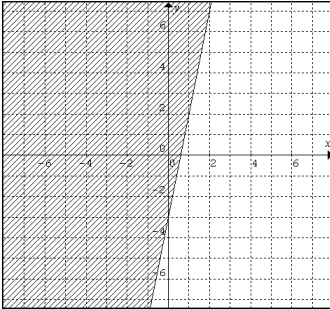
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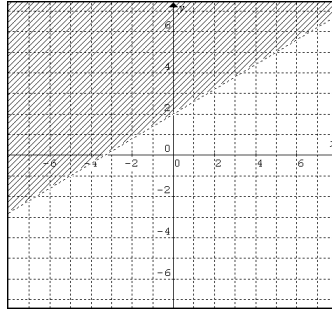
23.



17.



25.



**6.5**

1.  $y = -2x + 3$

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

5.  $y = 3x - 6$

7.  $y = \frac{1}{2}x - 5$

9.  $y = -2x$

11.  $y = 2$

13.  $y = -2x + 11$

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

17.  $y = 2$

19.  $y = 3.24x + 8.72$

21.  $4x - y = 0$

23.  $5x + 2y = -10$

25.  $4x + y = 9$   
33.  $4x - y = -10$   
41.  $x - y = 0$   
49.  $3x + 2y = 3$   
57.  $5x - 2y = 3$   
65. Collinear

27.  $2x + 3y = 3$   
35.  $9x + 2y = 32$   
43.  $9x + 4y = 46$   
51.  $y = 0$   
59.  $3x + y = 0$

29.  $18x - 3y = -13$   
37.  $y = -2$   
45.  $x - y = -3$   
53.  $2\pi x - y = 0$   
61.  $x - y = 3$

31.  $x = 4$   
39.  $x - y = 10$   
47.  $8x + 7y = 11$   
55.  $3x + y = 2$   
63. Not Collinear

## 6.6

1. Not Parallel  
9. Parallel  
17. Not Perpendicular  
25. Parallel  
33.  $7x - 5y = 95$   
41.  $13x - 10y = -55$   
49.  $5x + 3y = 15$

3. Parallel  
11. Perpendicular  
19. Perpendicular  
27. Neither  
35.  $5x + 3y = 57$   
43.  $10x - 12y = 62$   
51.  $3x + 5y = 9$

5. Not Parallel  
13. Not Perpendicular  
21. Perpendicular  
29. Parallel  
37.  $3x - y = -9$   
45.  $7x + 5y = 28$   
53.  $x + 2y = 4$

7. Parallel  
15. Perpendicular  
23. Neither  
31.  $2x - 3y = 9$   
39.  $5y = -2$   
47.  $2x - y = -7$   
55. Yes