

C1L4 Answers

12. $m = \frac{-1}{2}$

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

16. $m = -2$

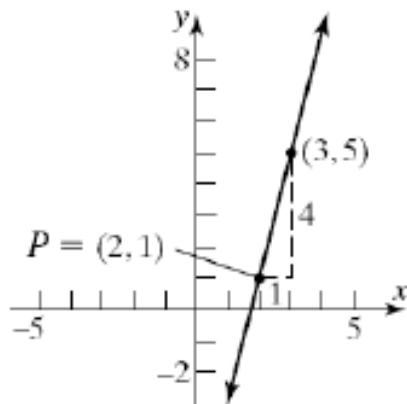
18. $m = \frac{2}{3}$

20. $m = 0$

22. m is undefined

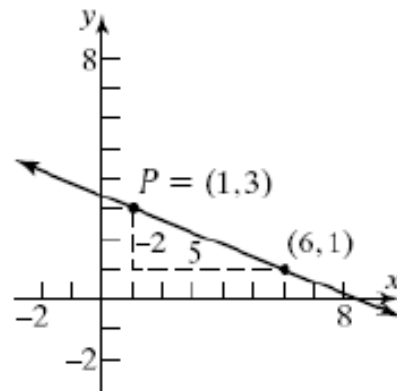
24.

$P = (2, 1); m = 4$



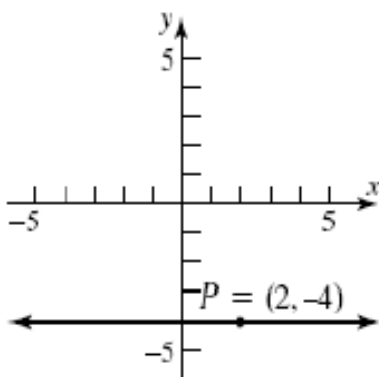
26.

$P = (1, 3); m = -\frac{2}{5}$



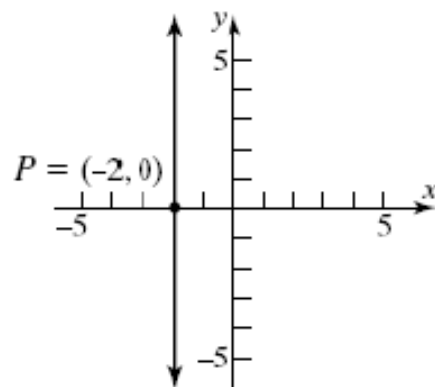
28.

$P = (2, -4); m = 0$



30.

$P = (-2, 0)$; slope undefined



$$37. \ y = \frac{1}{2}x$$
$$x - 2y = 0$$

$$38. \ y = \frac{-1}{2}x$$
$$x + 2y = 0$$

$$39. \ y = -x + 2$$
$$x + y - 2 = 0$$

$$40. \ y = \frac{1}{3}x + \frac{4}{3}$$
$$x - 3y + 4 = 0$$

$$41. \ y = 2x - 3$$
$$2x - y - 3 = 0$$

$$42. \ y = -x + 3$$
$$x + y - 3 = 0$$

$$43. \ y = \frac{-1}{2}x + \frac{5}{2}$$
$$x + 2y - 5 = 0$$

$$44. \ y = x + 2$$
$$x - y + 2 = 0$$

$$46. \ y = 2x - 11$$
$$2x - y - 11 = 0$$

$$48. \ y = \frac{1}{2}x - \frac{1}{2}$$
$$x - 2y - 1 = 0$$

$$50. \ y = \frac{1}{5}x + \frac{23}{5}$$
$$x - 5y + 23 = 0$$

$$52. \ y = -2x - 2$$
$$2x + y + 2 = 0$$

$$54. \ y = x + 4$$
$$x - y + 4 = 0$$

$$56. \ x = 3$$
$$x - 3 = 0$$

$$58. \ x = 4$$
$$x - 4 = 0$$

$$60. \ y = -3x - 1$$
$$3x + y + 1 = 0$$

$$62. y = \frac{1}{2}x$$

$$x - 2y = 0$$

$$64. y = 2$$

$$y - 2 = 0$$

$$66. y = \frac{-1}{2}x - \frac{3}{2}$$

$$x + 2y + 3 = 0$$

$$68. y = -2x + 4$$

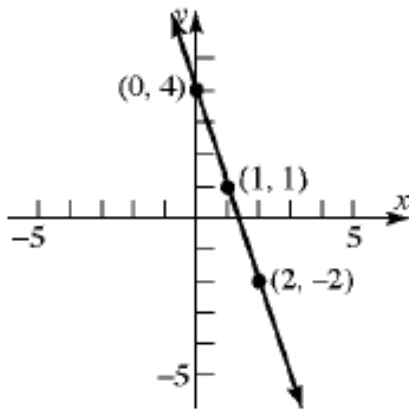
$$2x + y - 4 = 0$$

$$70. x = 3$$

$$x - 3 = 0$$

72.

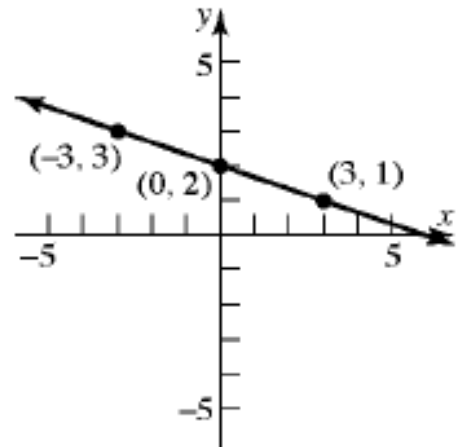
$$y = -3x + 4; \text{ Slope} = -3; \text{ y-intercept} = 4$$



74.

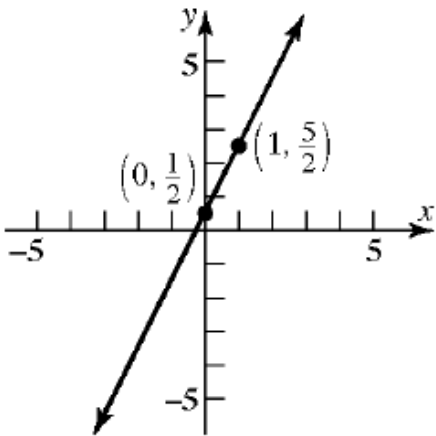
$$\frac{1}{3}x + y = 2; y = -\frac{1}{3}x + 2$$

$$\text{Slope} = -\frac{1}{3}; \text{ y-intercept} = 2$$



76.

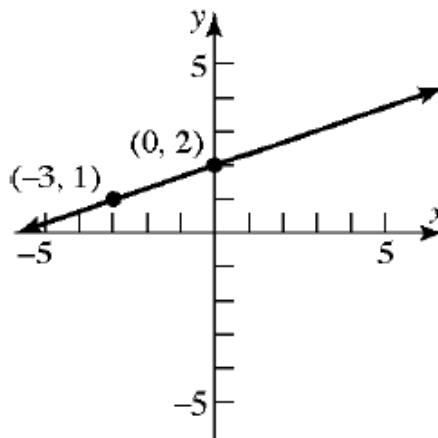
$$y = 2x + \frac{1}{2}; \text{Slope} = 2; \text{y-intercept} = \frac{1}{2}$$



78.

$$-x + 3y = 6; 3y = x + 6 \rightarrow y = \frac{1}{3}x + 2$$

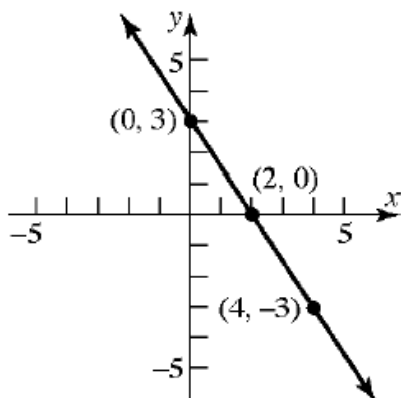
$$\text{Slope} = \frac{1}{3}; \text{y-intercept} = 2$$



80.

$$3x + 2y = 6; 2y = -3x + 6 \rightarrow y = -\frac{3}{2}x + 3$$

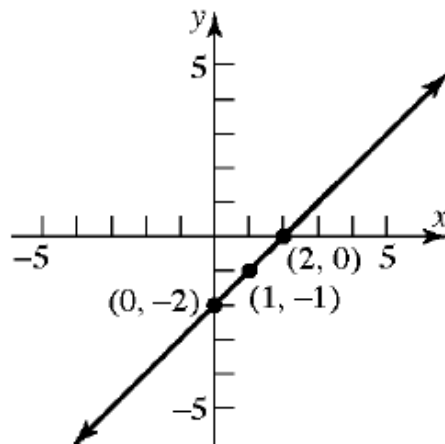
$$\text{Slope} = -\frac{3}{2}; \text{y-intercept} = 3$$



82.

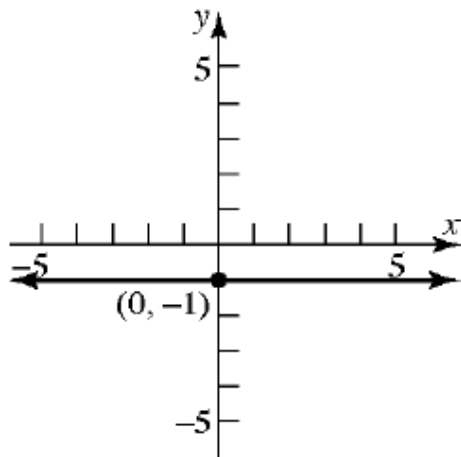
$$x - y = 2; y = x - 2$$

$$\text{Slope} = 1; \text{y-intercept} = -2$$



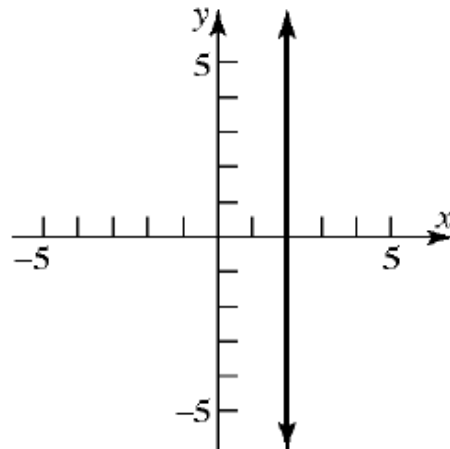
84.

$y = -1$; Slope = 0; y-intercept = -1



86.

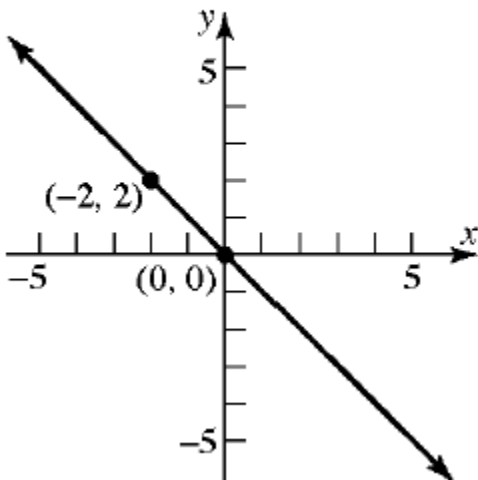
$x = 2$; Slope is undefined
y-intercept - none



88.

$x + y = 0$; $y = -x$

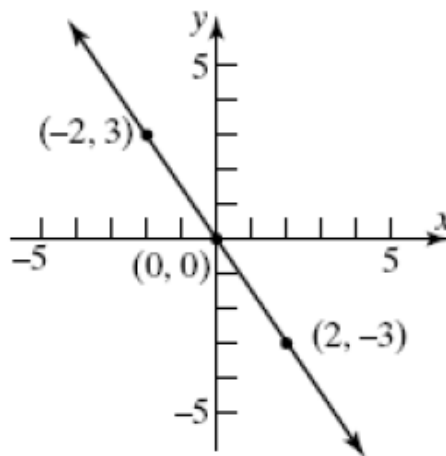
Slope = -1; y-intercept = 0



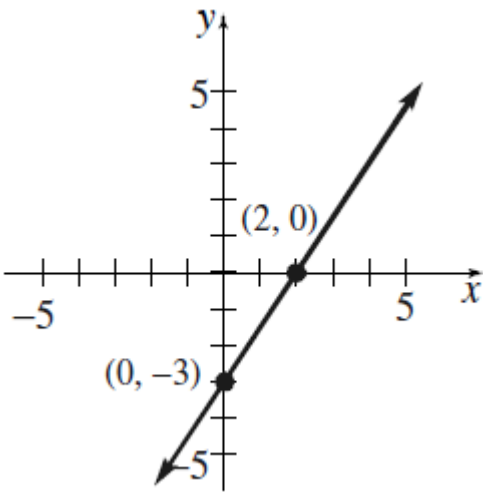
90.

$3x + 2y = 0$; $2y = -3x \rightarrow y = -\frac{3}{2}x$

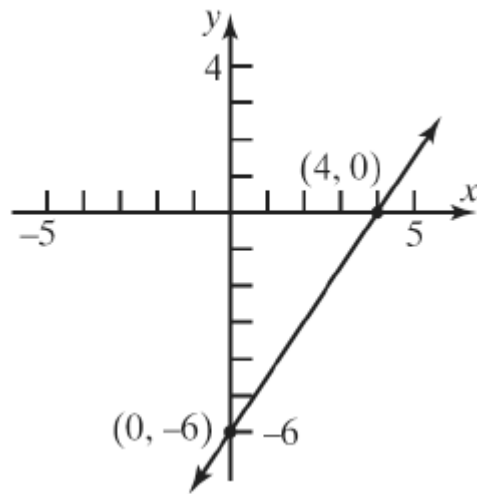
Slope = $-\frac{3}{2}$; y-intercept = 0



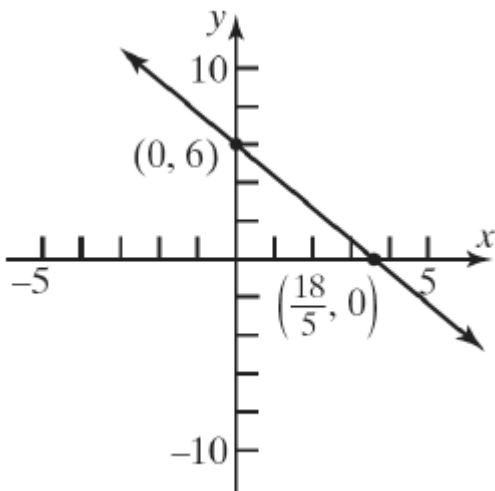
92. x-int: (2, 0)
y-int: (0, -3)



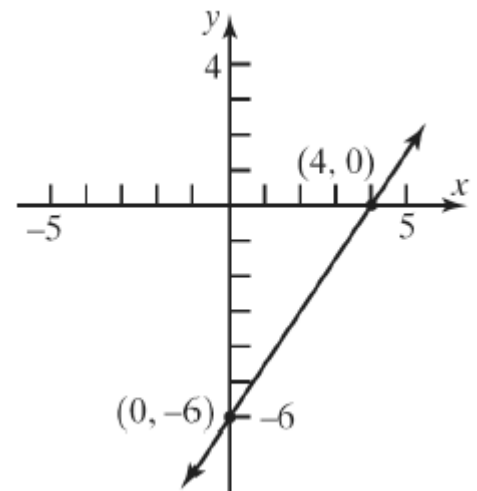
94. x-int: (4, 0)
y-int: (0, -6)



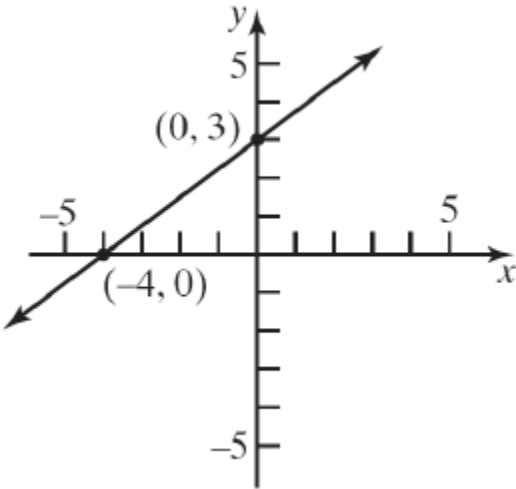
96. x-int: $(\frac{18}{5}, 0)$
y-int: (0, 6)



98. x-int: (4, 0)
y-int: (0, -6)



100. x-int: (-4, 0)
y-int: (0, 3)



102. $x = 0$

104. perpendicular

106. neither

107. $y = x + 2$

108. $y = -x + 1$

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

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

116. $C(x) = 8x + 500$

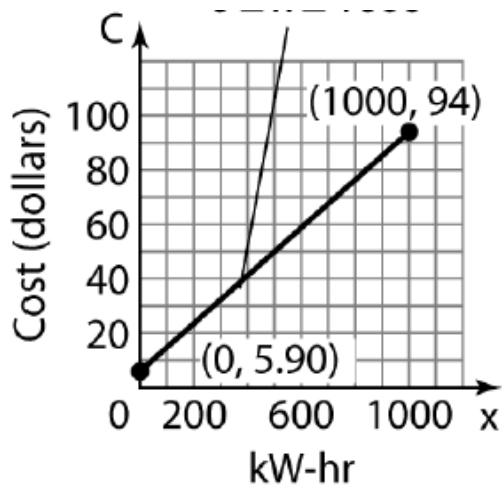
$C(400) = \$3700$

$C(740) = \$6420$

118. $S(x) = 0.05x + 375$

120. a. $C(x) = 0.0881x + 5.90$
 $0 \leq x \leq 1000$

b.



c. $C(200) = \$23.52$

d. $C(500) = \$49.95$

e. For every Kilowatt Hour used the cost increases by 8.81 cents.

122. a. $K(C) = C + 273$

b. $C = \frac{5}{9} (F - 32)$

$$K(F) = \frac{5}{9} F + \frac{2297}{9}$$

124. a. $y = -1.04x + 20.6$

b. x-int: $(19.8, 0)$

y-int: $(0, 20.6)$

c. no

d. $y = -5.4$, not reasonable