Pre-Calculus Name_____ ID: 1

Assignment

Date_____ Period____

Find the slope of the line through each pair of points.

1) $(3, -19), (12, 5)$

2) $(1, -8), (-5, 19)$

3) $(13, 12), (-18, 3)$

4) $(0, 1), (14, -18)$

5) $(-5, 15), (18, 4)$

6) $(-19, 5), (-18, 3)$

7) $(-14, -18), (1, -10)$

8) $(15, -16), (-4, 19)$

9) $(7, 6), (-11, -8)$

10) $(-19, 12), (5, -18)$

Write the slope-intercept form of the equation of each line given the slope and y-intercept.

11) Slope = $\frac{2}{3}$, y-intercept = 4

12) Slope = $\frac{7}{3}$, y-intercept = 2

13) Slope = 0, y-intercept = 4

14) Slope = $-\frac{2}{5}$, y-intercept = 0

15) Slope = $-\frac{3}{4}$, y-intercept = 3

16) Slope = $\frac{1}{3}$, y-intercept = 3

17) Slope = $\frac{6}{5}$, y-intercept = 5

18) Slope = -2, y-intercept = 3

19) Slope = -2, y-intercept = 4

20) Slope = -1, y-intercept = 5

Write the slope-intercept form of the equation of the line through the given point with the given slope.

21) through: $(-4, 2)$, slope = $-\frac{3}{2}$

22) through: $(-3, 3)$, slope = $-\frac{7}{3}$

23) through: $(2, -5)$, slope = 0

24) through: $(-2, 4)$, slope = -1

25) through: $(-5, -2)$, slope $= \frac{6}{5}$

26) through: $(-3, -1)$, slope $= \frac{4}{3}$

27) through: $(1, -1)$, slope $= -5$

28) through: $(3, 2)$, slope $= -\frac{1}{3}$

29) through: $(0, -5)$, slope $= 1$

30) through: $(-3, -2)$, slope $= -3$

31) through: $(5, 1)$, slope $= \frac{4}{5}$

32) through: $(-2, 0)$, slope $= \frac{3}{2}$

33) through: $(-4, 5)$, slope $= -\frac{7}{4}$

34) through: $(-1, 4)$, slope $= 4$

35) through: $(5, -5)$, slope $= -\frac{4}{5}$

36) through: $(-4, 0)$, slope $= -\frac{2}{3}$

37) through: $(1, -5)$, slope $= -8$

38) through: $(-2, 0)$, slope $= -\frac{5}{6}$

39) through: $(-5, 5)$, slope $= -\frac{8}{5}$

40) through: $(2, -1)$, slope $= 1$

Write the slope-intercept form of the equation of the line through the given points.

41) through: $(0, 5)$ and $(-5, 1)$

42) through: $(0, -4)$ and $(4, 3)$

43) through: $(-4, 0)$ and $(3, 5)$

44) through: $(-3, -5)$ and $(0, 2)$

45) through: $(-4, 0)$ and $(5, -2)$

46) through: $(0, 4)$ and $(2, -2)$

47) through: $(-1, -5)$ and $(-5, 5)$

48) through: $(0, 3)$ and $(4, 0)$

49) through: $(4, 0)$ and $(-5, -5)$

50) through: $(4, -2)$ and $(-2, -5)$

51) through: $(-2, -5)$ and $(0, 5)$

52) through: $(-1, 0)$ and $(0, -4)$

53) through: $(0, 3)$ and $(3, -4)$

54) through: $(0, 1)$ and $(-3, -3)$

55) through: $(5, 4)$ and $(-3, 3)$

56) through: $(-3, -5)$ and $(-2, 0)$

57) through: $(5, -2)$ and $(3, -5)$

58) through: $(0, 4)$ and $(-2, 4)$

59) through: $(1, 3)$ and $(1, 0)$

60) through: $(1, 2)$ and $(5, 0)$

Write the slope-intercept form of the equation of the line described.

61) through: $(1, -1)$, parallel to $y = -x - 1$

62) through: $(5, -5)$, parallel to $y = -\frac{8}{5}x + 4$

63) through: $(1, -1)$, parallel to $y = 2x$

64) through: $(-5, 0)$, parallel to $y = x - 5$

65) through: $(5, -4)$, parallel to $y = -\frac{3}{4}x - 2$

66) through: $(-2, 2)$, parallel to $y = \frac{3}{2}x + 1$

67) through: $(5, 4)$, parallel to $y = \frac{3}{2}x + 5$

68) through: $(-1, -3)$, parallel to $y = 7x - 4$

69) through: $(1, 2)$, parallel to $y = \frac{7}{4}x - 1$

70) through: $(-1, 0)$, parallel to $y = -4x + 3$

71) through: $(5, 1)$, perp. to $y = -\frac{5}{3}x - 1$

72) through: $(-2, 1)$, perp. to $y = \frac{1}{2}x + 4$

73) through: $(5, -3)$, perp. to $y = -2x - 3$

74) through: $(5, 3)$, perp. to $y = -\frac{7}{5}x + 2$

75) through: $(3, 5)$, perp. to $y = -\frac{3}{4}x + 3$

76) through: $(5, -2)$, perp. to $x = 0$

77) through: $(3, 1)$, perp. to $y = \frac{3}{2}x + 1$

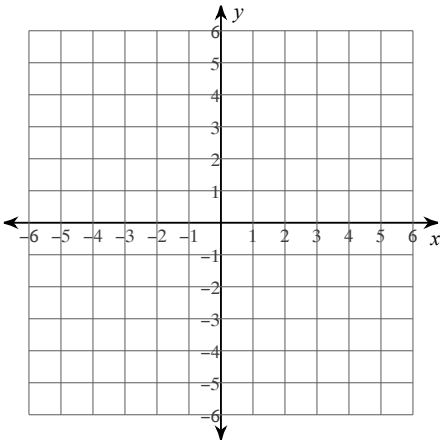
78) through: $(-1, 2)$, perp. to $y = \frac{1}{5}x - 1$

79) through: $(-4, -1)$, perp. to $y = x - 2$

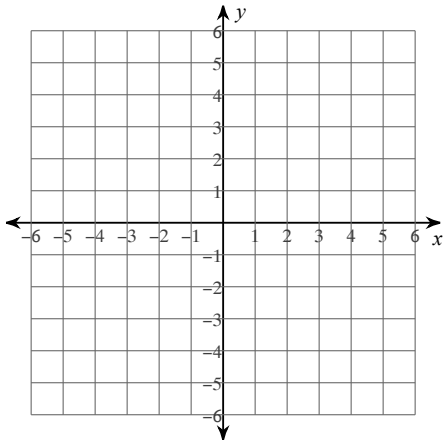
80) through: $(-2, 5)$, perp. to $y = x + 4$

Sketch the graph of each line.

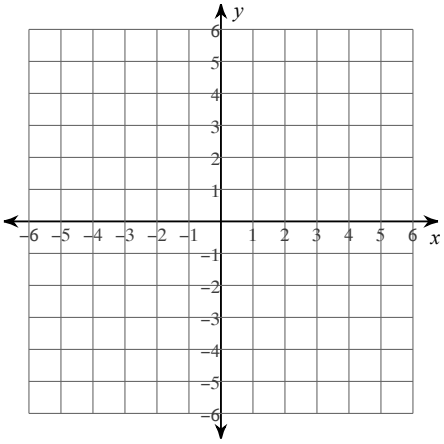
81) $3x + 2y = 4$



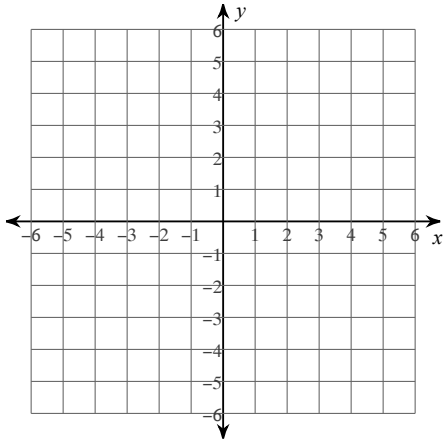
82) $7x + y = 4$



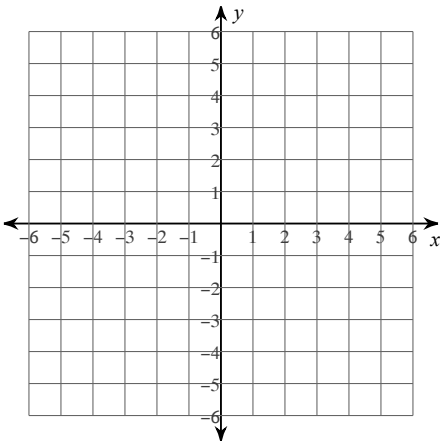
83) $4x + y = -4$



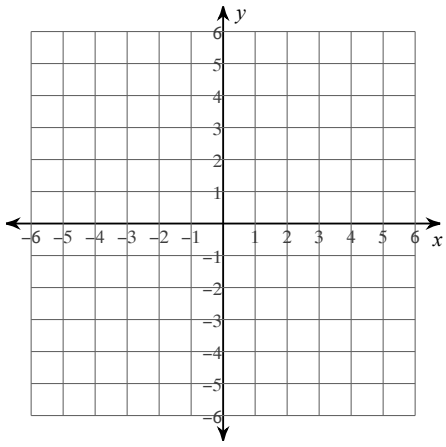
84) $x + 5y = -15$



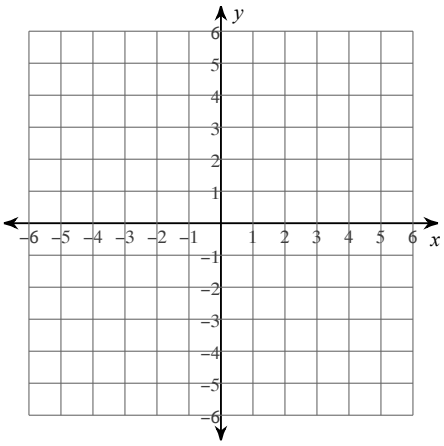
85) $4x - 3y = 9$



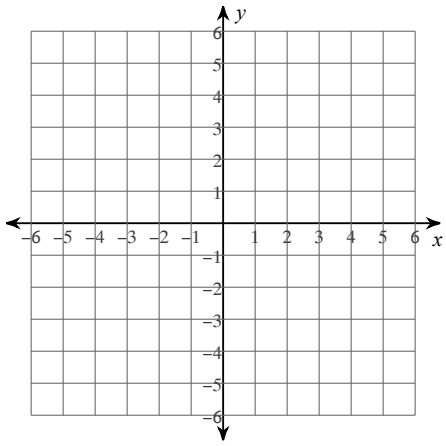
86) $3x + 2y = -4$



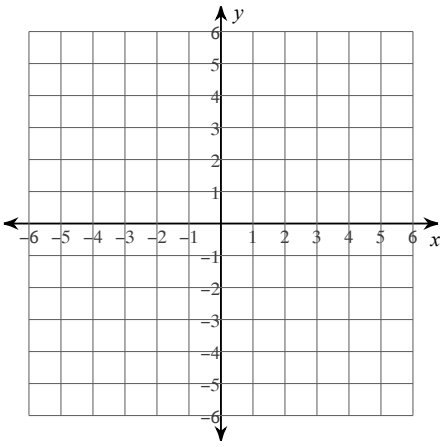
87) $9x + y = 5$



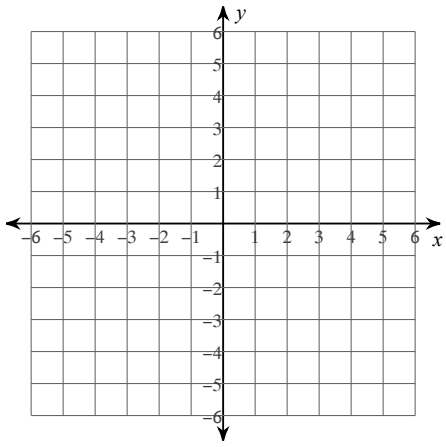
88) $6x + 5y = -10$



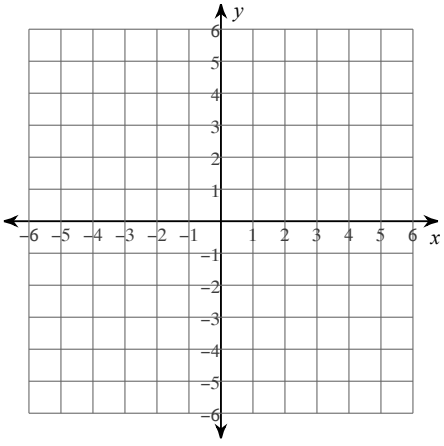
89) $3x + 5y = -5$



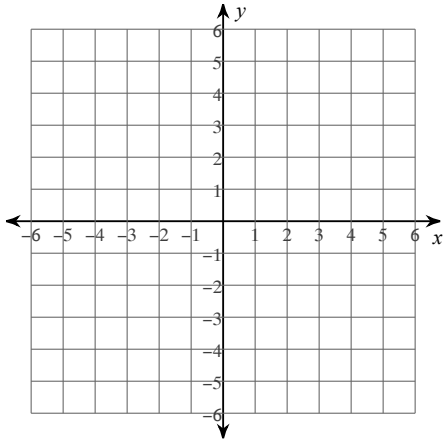
90) $x - 3y = 15$



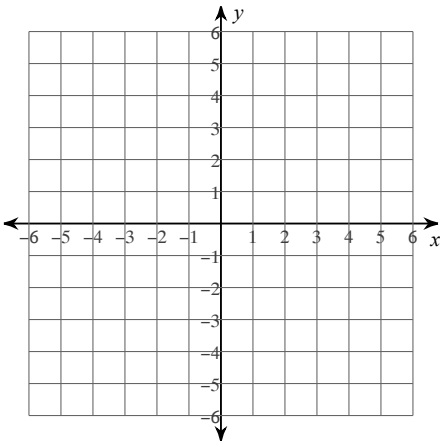
91) $x - 2y = 6$



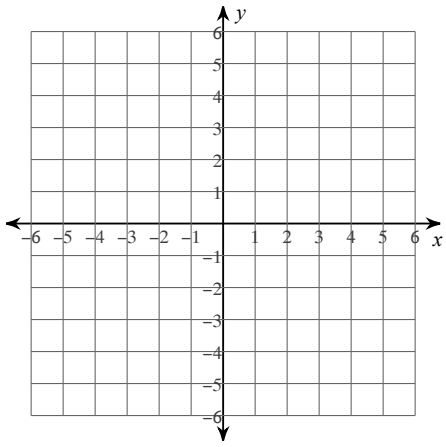
92) $3x + y = 0$



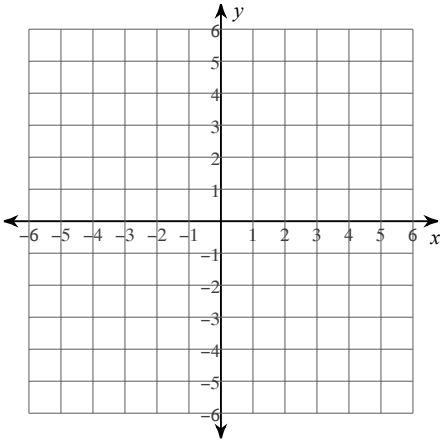
93) $x - y = -4$



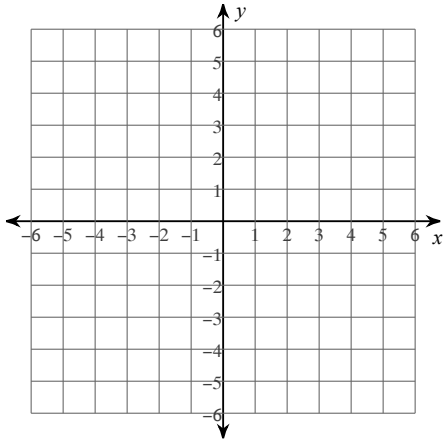
94) $x = 0$



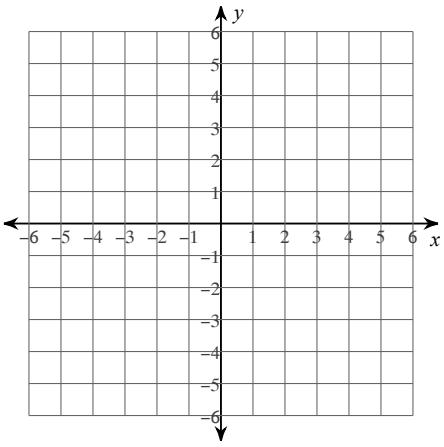
95) $2x - y = 5$



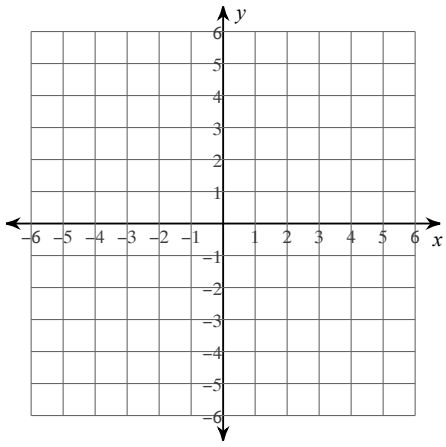
96) $5x - y = -2$



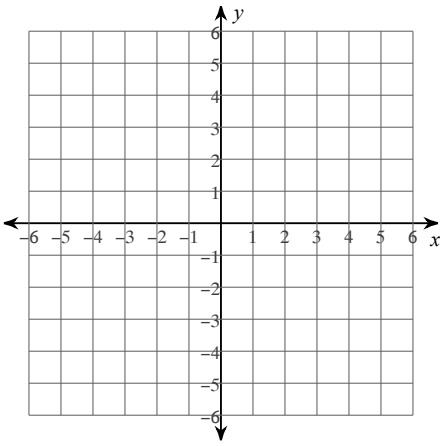
97) $x - 3y = -9$



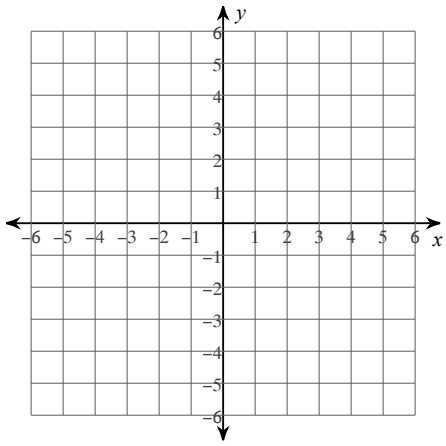
98) $x = 1$



99) $5x - y = -3$



100) $x + y = -1$



Pre-Calculus Name_____ ID: 1

Assignment

Date_____ Period____

Find the slope of the line through each pair of points.

1) $(3, -19), (12, 5)$ $\frac{8}{3}$

2) $(1, -8), (-5, 19)$ $-\frac{9}{2}$

3) $(13, 12), (-18, 3)$ $\frac{9}{31}$

4) $(0, 1), (14, -18)$ $-\frac{19}{14}$

5) $(-5, 15), (18, 4)$ $-\frac{11}{23}$

6) $(-19, 5), (-18, 3)$ -2

7) $(-14, -18), (1, -10)$ $\frac{8}{15}$

8) $(15, -16), (-4, 19)$ $-\frac{35}{19}$

9) $(7, 6), (-11, -8)$ $\frac{7}{9}$

10) $(-19, 12), (5, -18)$ $-\frac{5}{4}$

Write the slope-intercept form of the equation of each line given the slope and y-intercept.

11) Slope $= \frac{2}{3}$, y-intercept $= 4$ $y = \frac{2}{3}x + 4$

12) Slope $= \frac{7}{3}$, y-intercept $= 2$ $y = \frac{7}{3}x + 2$

13) Slope $= 0$, y-intercept $= 4$ $y = 4$

14) Slope $= -\frac{2}{5}$, y-intercept $= 0$ $y = -\frac{2}{5}x$

15) Slope $= -\frac{3}{4}$, y-intercept $= 3$ $y = -\frac{3}{4}x + 3$

16) Slope $= \frac{1}{3}$, y-intercept $= 3$ $y = \frac{1}{3}x + 3$

17) Slope $= \frac{6}{5}$, y-intercept $= 5$ $y = \frac{6}{5}x + 5$

18) Slope $= -2$, y-intercept $= 3$ $y = -2x + 3$

19) Slope $= -2$, y-intercept $= 4$ $y = -2x + 4$

20) Slope $= -1$, y-intercept $= 5$ $y = -x + 5$

Write the slope-intercept form of the equation of the line through the given point with the given slope.

21) through: $(-4, 2)$, slope $= -\frac{3}{2}$ $y = -\frac{3}{2}x - 4$

22) through: $(-3, 3)$, slope $= -\frac{7}{3}$ $y = -\frac{7}{3}x - 4$

23) through: $(2, -5)$, slope $= 0$ $y = -5$

24) through: $(-2, 4)$, slope $= -1$ $y = -x + 2$

25) through: $(-5, -2)$, slope $= \frac{6}{5}$ $y = \frac{6}{5}x + 4$

26) through: $(-3, -1)$, slope $= \frac{4}{3}$ $y = \frac{4}{3}x + 3$

27) through: $(1, -1)$, slope $= -5$
$y = -5x + 4$

28) through: $(3, 2)$, slope $= -\frac{1}{3}$ $y = -\frac{1}{3}x + 3$

29) through: $(0, -5)$, slope $= 1$
$y = x - 5$

30) through: $(-3, -2)$, slope $= -3$
$y = -3x - 11$

31) through: $(5, 1)$, slope $= \frac{4}{5}$ $y = \frac{4}{5}x - 3$

32) through: $(-2, 0)$, slope $= \frac{3}{2}$ $y = \frac{3}{2}x + 3$

33) through: $(-4, 5)$, slope $= -\frac{7}{4}$ $y = -\frac{7}{4}x - 2$

34) through: $(-1, 4)$, slope $= 4$
$y = 4x + 8$

35) through: $(5, -5)$, slope $= -\frac{4}{5}$ $y = -\frac{4}{5}x - 1$

36) through: $(-4, 0)$, slope $= -\frac{2}{3}$ $y = -\frac{2}{3}x - \frac{8}{3}$

37) through: $(1, -5)$, slope $= -8$
$y = -8x + 3$

38) through: $(-2, 0)$, slope $= -\frac{5}{6}$ $y = -\frac{5}{6}x - \frac{5}{3}$

39) through: $(-5, 5)$, slope $= -\frac{8}{5}$ $y = -\frac{8}{5}x - 3$

40) through: $(2, -1)$, slope $= 1$
$y = x - 3$

Write the slope-intercept form of the equation of the line through the given points.

41) through: $(0, 5)$ and $(-5, 1)$ $y = \frac{4}{5}x + 5$

42) through: $(0, -4)$ and $(4, 3)$ $y = \frac{7}{4}x - 4$

43) through: $(-4, 0)$ and $(3, 5)$ $y = \frac{5}{7}x + \frac{20}{7}$

44) through: $(-3, -5)$ and $(0, 2)$ $y = \frac{7}{3}x + 2$

45) through: $(-4, 0)$ and $(5, -2)$ $y = -\frac{2}{9}x - \frac{8}{9}$

46) through: $(0, 4)$ and $(2, -2)$
$y = -3x + 4$

47) through: $(-1, -5)$ and $(-5, 5)$ $y = -\frac{5}{2}x - \frac{15}{2}$

48) through: $(0, 3)$ and $(4, 0)$ $y = -\frac{3}{4}x + 3$

49) through: $(4, 0)$ and $(-5, -5)$ $y = \frac{5}{9}x - \frac{20}{9}$

50) through: $(4, -2)$ and $(-2, -5)$ $y = \frac{1}{2}x - 4$

51) through: $(-2, -5)$ and $(0, 5)$
$y = 5x + 5$

52) through: $(-1, 0)$ and $(0, -4)$
$y = -4x - 4$

53) through: $(0, 3)$ and $(3, -4)$ $y = -\frac{7}{3}x + 3$

54) through: $(0, 1)$ and $(-3, -3)$ $y = \frac{4}{3}x + 1$

55) through: $(5, 4)$ and $(-3, 3)$ $y = \frac{1}{8}x + \frac{27}{8}$

56) through: $(-3, -5)$ and $(-2, 0)$
$y = 5x + 10$

57) through: $(5, -2)$ and $(3, -5)$ $y = \frac{3}{2}x - \frac{19}{2}$

58) through: $(0, 4)$ and $(-2, 4)$
$y = 4$

59) through: $(1, 3)$ and $(1, 0)$
$x = 1$

60) through: $(1, 2)$ and $(5, 0)$ $y = -\frac{1}{2}x + \frac{5}{2}$

Write the slope-intercept form of the equation of the line described.

61) through: $(1, -1)$, parallel to $y = -x - 1$
$y = -x$

62) through: $(5, -5)$, parallel to $y = -\frac{8}{5}x + 4$ $y = -\frac{8}{5}x + 3$

63) through: $(1, -1)$, parallel to $y = 2x$
$y = 2x - 3$

64) through: $(-5, 0)$, parallel to $y = x - 5$
$y = x + 5$

65) through: $(5, -4)$, parallel to $y = -\frac{3}{4}x - 2$ $y = -\frac{3}{4}x - \frac{1}{4}$

66) through: $(-2, 2)$, parallel to $y = \frac{3}{2}x + 1$ $y = \frac{3}{2}x + 5$

67) through: $(5, 4)$, parallel to $y = \frac{3}{2}x + 5$ $y = \frac{3}{2}x - \frac{7}{2}$

68) through: $(-1, -3)$, parallel to $y = 7x - 4$
$y = 7x + 4$

69) through: $(1, 2)$, parallel to $y = \frac{7}{4}x - 1$ $y = \frac{7}{4}x + \frac{1}{4}$

70) through: $(-1, 0)$, parallel to $y = -4x + 3$
$y = -4x - 4$

71) through: $(5, 1)$, perp. to $y = -\frac{5}{3}x - 1$ $y = \frac{3}{5}x - 2$

72) through: $(-2, 1)$, perp. to $y = \frac{1}{2}x + 4$
$y = -2x - 3$

73) through: $(5, -3)$, perp. to $y = -2x - 3$ $y = \frac{1}{2}x - \frac{11}{2}$

74) through: $(5, 3)$, perp. to $y = -\frac{7}{5}x + 2$ $y = \frac{5}{7}x - \frac{4}{7}$

75) through: $(3, 5)$, perp. to $y = -\frac{3}{4}x + 3$ $y = \frac{4}{3}x + 1$

76) through: $(5, -2)$, perp. to $x = 0$
$y = -2$

77) through: $(3, 1)$, perp. to $y = \frac{3}{2}x + 1$ $y = -\frac{2}{3}x + 3$

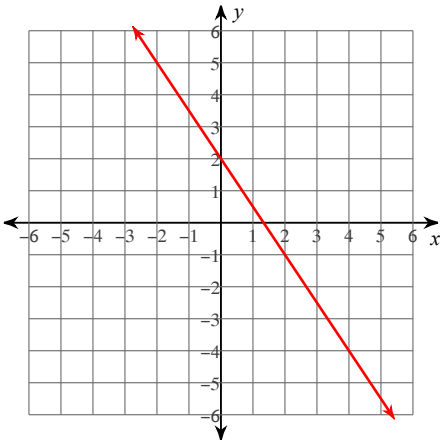
78) through: $(-1, 2)$, perp. to $y = \frac{1}{5}x - 1$
$y = -5x - 3$

79) through: $(-4, -1)$, perp. to $y = x - 2$
$y = -x - 5$

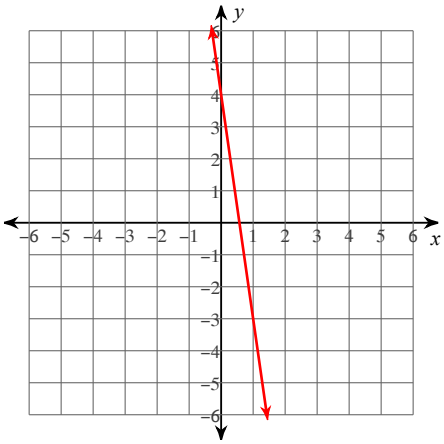
80) through: $(-2, 5)$, perp. to $y = x + 4$
$y = -x + 3$

Sketch the graph of each line.

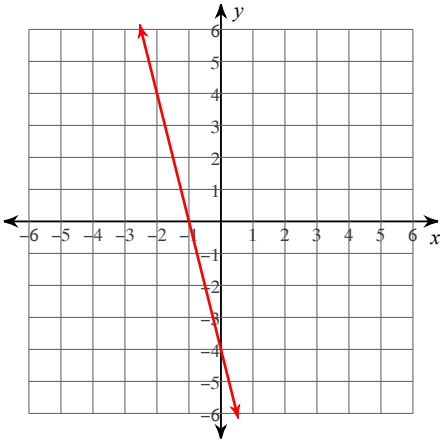
81) $3x + 2y = 4$



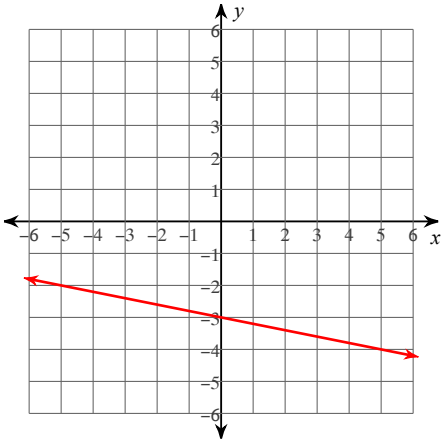
82) $7x + y = 4$



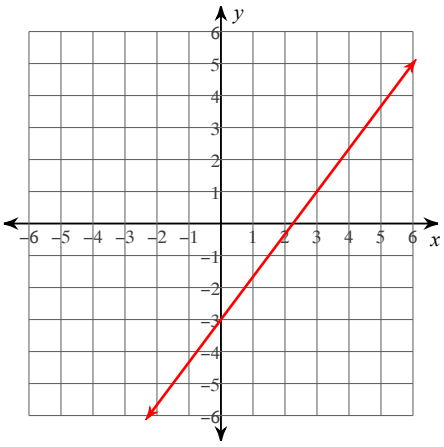
83) $4x + y = -4$



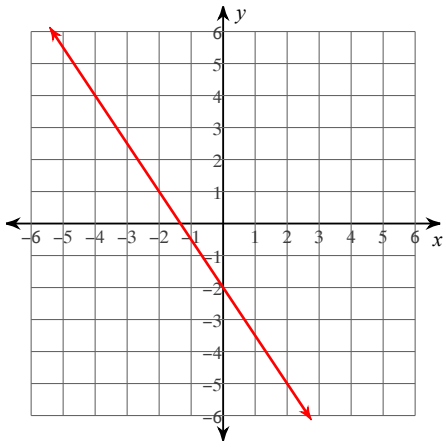
84) $x + 5y = -15$



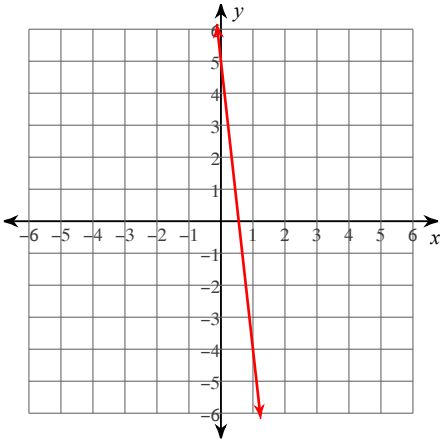
85) $4x - 3y = 9$



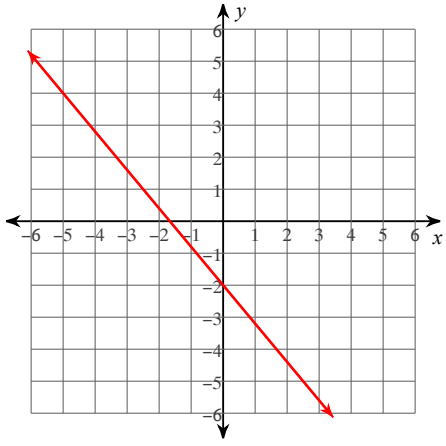
86) $3x + 2y = -4$



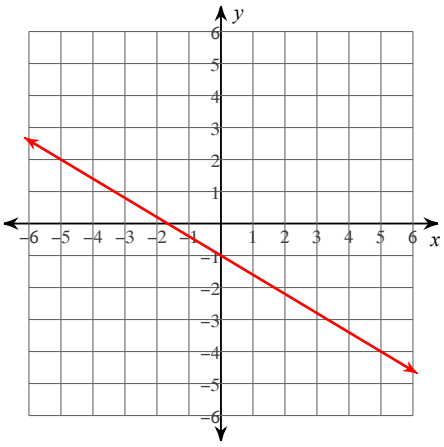
87) $9x + y = 5$



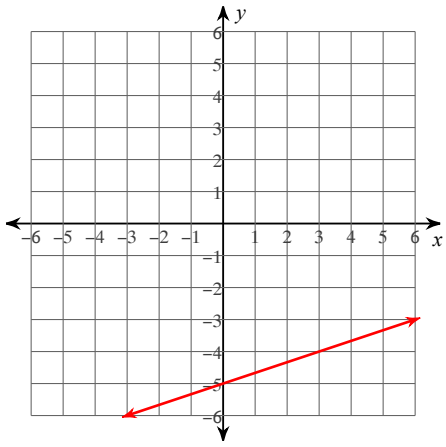
88) $6x + 5y = -10$



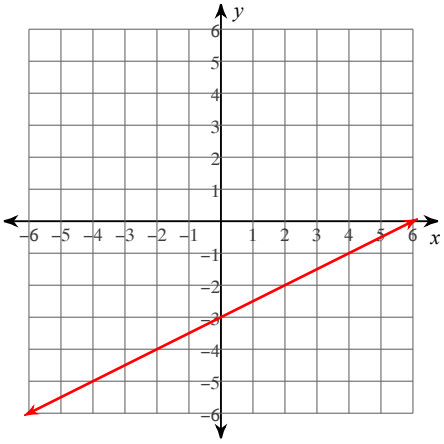
89) $3x + 5y = -5$



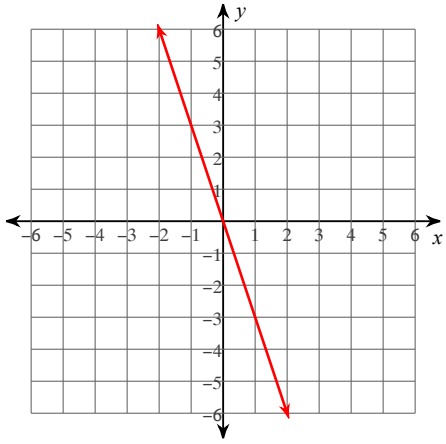
90) $x - 3y = 15$



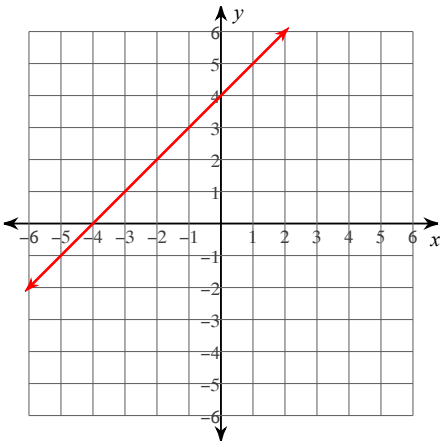
91) $x - 2y = 6$



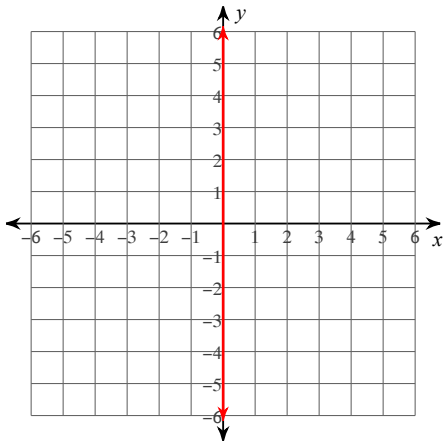
92) $3x + y = 0$



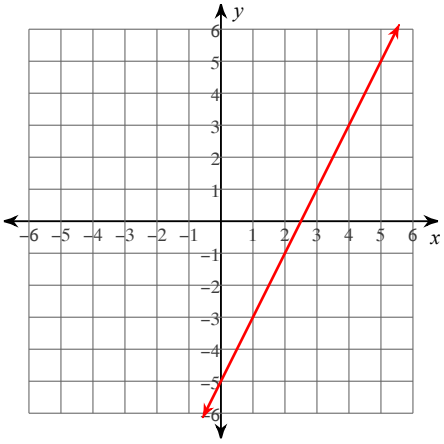
93) $x - y = -4$



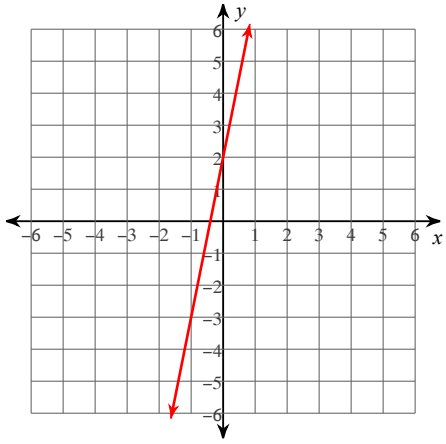
94) $x = 0$



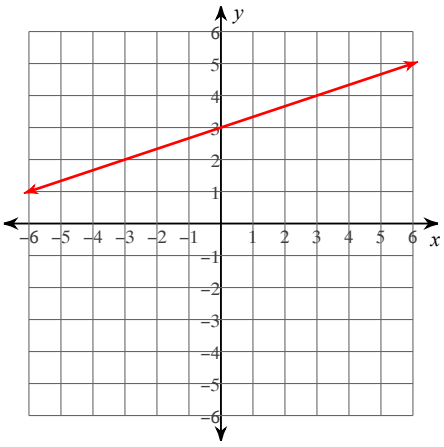
95) $2x - y = 5$



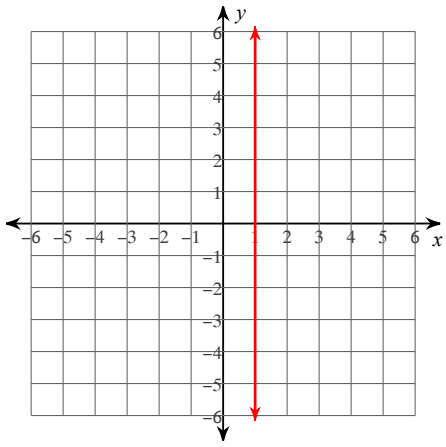
96) $5x - y = -2$



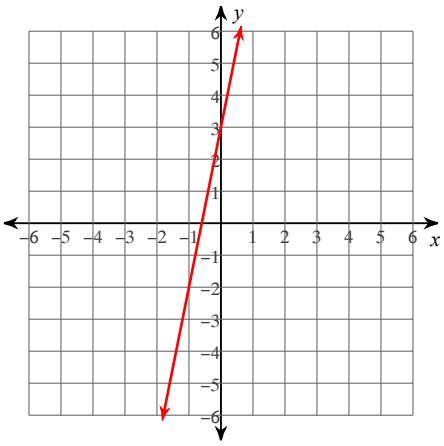
97) $x - 3y = -9$



98) $x = 1$



99) $5x - y = -3$



100) $x + y = -1$