1. The slope of x-axis is

   (i) 1 (ii) -1 (iii) undefined (iv) 90 (v) 0

2. The slope of y-axis is

   (i) -1 (ii) undefined (iii) 1 (iv) 90 (v) 0

3. The slope of the line joining the points $(6,(-3))$ and $((-4),1)$ is

   (i) $(\frac{-4}{5})$ (ii) $(\frac{-2}{3})$ (iii) 0 (iv) $(\frac{-2}{7})$ (v) $(\frac{-2}{5})$

4. The slope of the line perpendicular to the line passing through the points $((-6),5)$ and $(3,3)$ is

   (i) $\frac{17}{4}$ (ii) $\frac{7}{2}$ (iii) $\frac{9}{2}$ (iv) $\frac{11}{2}$ (v) 5

5. The slope of a line parallel to the line $(-x-6y-37)=0$ is

   (i) $(\frac{-1}{8})$ (ii) $\frac{1}{6}$ (iii) $(\frac{-1}{4})$ (iv) $(\frac{-1}{6})$ (v) $(\frac{-1}{2})$

6. The slope of a line perpendicular to the line $(7x+11y-31)=0$ is

   (i) $\frac{11}{7}$ (ii) $\frac{9}{5}$ (iii) $\frac{9}{7}$ (iv) $\frac{13}{7}$ (v) $\frac{13}{9}$

7. The equation of the line passing through the origin and having a slope $m \neq 0$ is

   (i) $x=0$ (ii) $y=0$ (iii) $y=mx$ (iv) $y=mx+c$ (v) $x=my+c$

8. The equation of the line with slope $m \neq 0$ and y-intercept $c \neq 0$ is

   (i) $x=my+c$ (ii) $x=0$ (iii) $y=0$ (iv) $y=mx$ (v) $y=mx+c$

9. Find the x-intercept of the line $(x-1)=0$

   (i) 1 (ii) 3 (iii) 2 (iv) -2 (v) 0

10. Find the y-intercept of the line $(-x+15y+22)=0$

    (i) $(\frac{-4}{3})$ (ii) $(\frac{-22}{15})$ (iii) $(\frac{-22}{13})$ (iv) $(\frac{-22}{17})$ (v) $(\frac{-8}{5})$

11. The equation of the line with x-intercept $\frac{5}{8}$ and y-intercept $\frac{2}{5}$ is

    (i) $(25x+16y-10)=0$ (ii) $(16x+25y-10)=0$ (iii) $(56x+65y-91)=0$ (iv) $(16x+65y-26)=0$

    (v) $(56x+25y-35)=0$

12. The equation of the line passing through the points $(6,(-6))$ and $(0,1)$ is

(i) $(11x-y-72)=0$ (ii) $(7x+6y-6)=0$ (iii) $(4x-7y+7)=0$ (iv) $(x+9y-52)=0$

13. The equation of the line passing through the point $(5,8)$ and slope 3 is

(i) $(2x+13y-25)=0$ (ii) $(-6x+2y+14)=0$ (iii) $(-7x-y+43)=0$ (iv) $(-x-3y+9)=0$

14. The equation of the line with slope 5 and y-intercept 2 is

(i) $(3x+7y-14)=0$ (ii) $(-5x+y-2)=0$ (iii) $(-2x+8y-54)=0$ (iv) $(-3x+y-26)=0$

15. The equation of x-axis is

(i) $y=x$ (ii) $y=0$ (iii) $y=1$ (iv) $x=0$ (v) $x=1$

16. The equation of y-axis is

(i) $y=1$ (ii) $y=0$ (iii) $x=0$ (iv) $x=1$ (v) $y=x$

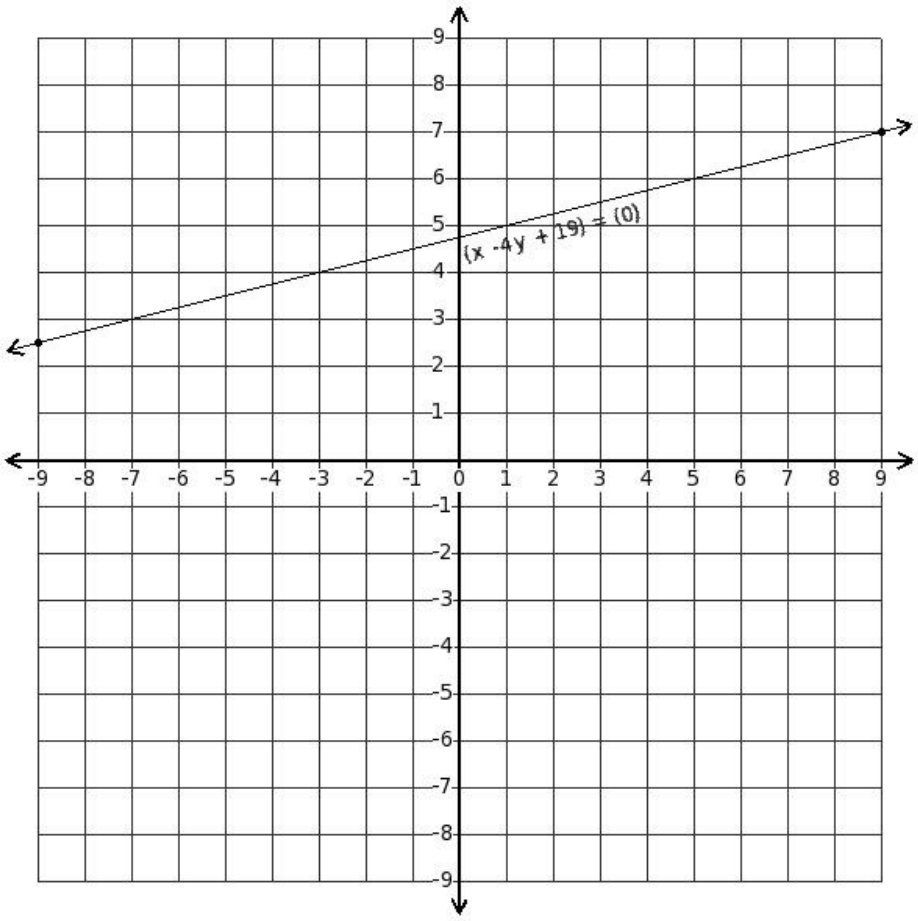
17. The slope of any line parallel to x-axis is

(i) -1 (ii) 90 (iii) 1 (iv) undefined (v) zero

18. The slope of any line parallel to y-axis is

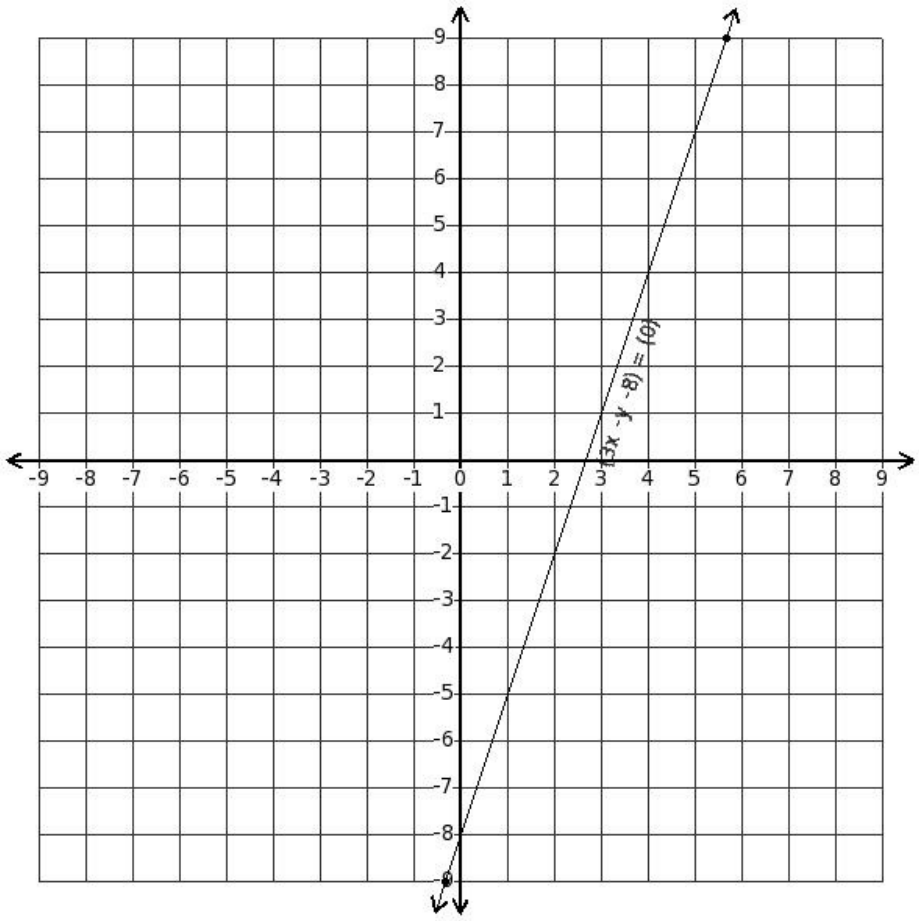
(i) undefined (ii) 1 (iii) -1 (iv) zero (v) 90

19. Find the x-intercept of the displayed line



(i) $\frac{1}{4}$ (ii) $4\frac{3}{4}$ (iii) -4 (iv) -19

20. Find the y-intercept of the displayed line



(i) $2\frac{2}{3}$ (ii) -8 (iii) $(\frac{-1}{3})$ (iv) 3

21. Which of the following are true?

a) Equation of the line passing through origin is y = x
b) Equation of the line passing through origin is $y = mx$
c) Equation of the line passing through origin is $y = mx + c$
d) Equation of the line passing through origin is y = mx + 8

(i) {d,b} (ii) {a,b} (iii) {c,a} (iv) {c,d,a} (v) {c,b,a}

22. Which of the following are true?

a) The ordinate of every point on x-axis is zero
b) The abscissa of every point on x-axis is zero
c) The abscissa of every point on y-axis is zero
d) The ordinate of every point on y-axis is zero

(i) {b,a} (ii) {b,c,a} (iii) {b,d,a} (iv) {d,c} (v) {a,c}

23. Which of the following are true?

a) A vertical line other than y-axis has no y-intercept
b) A vertical line other than y-axis has no x-intercept
c) A horizontal line other than x-axis has no x-intercept
d) A horizontal line other than x-axis has no y-intercept

(i) {b,a} (ii) {a,c} (iii) {d,c} (iv) {b,c,a} (v) {b,d,a}

24. Equation of the line passing through a given point (x_1, y_1) and having slope m is

a) $(y - y_1)m = (x - x_1)$
b) None of the above
c) $(y - y_1) = m(x - x_1)$
d) $(y - x_1) = m(x - y_1)$

(i) {d,a,c} (ii) {a,c} (iii) {b,c} (iv) {c}

25. Equation of a straight line which is parallel to x-axis (where k is a constant) is

(i) $x = k$ (ii) $x = 0$ (iii) $x = y$ (iv) $y = k$ (v) $y = 0$

26. Equation of a straight line which is parallel to y-axis (where k is a constant) is

(i) $x = y$ (ii) $x = 0$ (iii) $x = k$ (iv) $y = 0$ (v) $y = k$

27. If $ax + by + c = 0$ is a straight line, the x-intercept is

(i) c (ii) a (iii) $\frac{-c}{a}$ (iv) b (v) $\frac{-c}{b}$

28. If $ax + by + c = 0$ is a straight line, the y-intercept is

(i) c (ii) $\frac{-c}{a}$ (iii) a (iv) $\frac{-c}{b}$ (v) b

29. The slope of the line $ax + by + c = 0$ is

(i) a (ii) $\frac{-b}{a}$ (iii) c (iv) b (v) $\frac{-a}{b}$

30. In equation of the line $y = mx + c$, the slope is

(i) y (ii) c (iii) undefined (iv) x (v) m

31. In equation of the line $y = mx + c$, the y-intercept is

(i) c (ii) y (iii) x (iv) m (v) undefined

32. Write the given equation $(3x + 6y - 3) = 0$ in $y = mx + c$ form

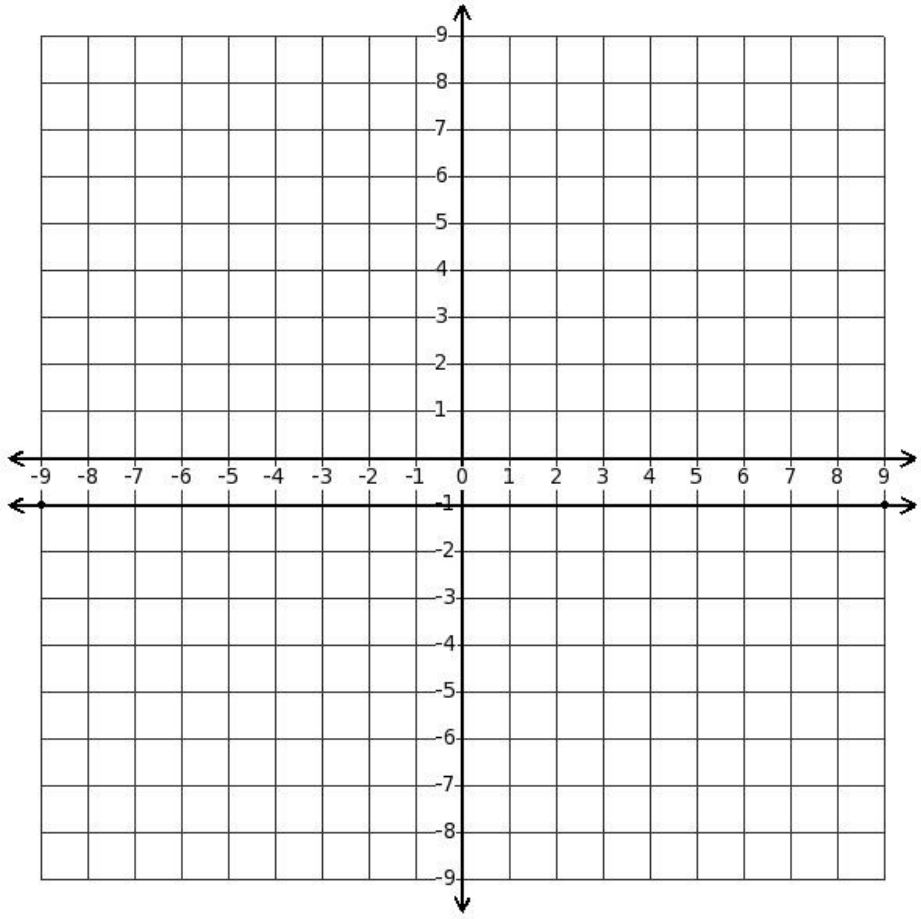
(i) $y = (-\frac{1}{2}x - \frac{1}{2})$ (ii) $y = (-x + \frac{1}{2})$ (iii) $y = (-\frac{1}{2}x + \frac{1}{2})$ (iv) $y = (-\frac{1}{4}x + \frac{1}{2})$ (v) $y = (-\frac{1}{2}x + \frac{3}{2})$

33. Write the given equation $y = (\frac{1}{3}x + \frac{20}{3})$ in $ax + by + c = 0$ form

(i) $(-\frac{1}{5}x + y - \frac{20}{3}) = 0$ (ii) $(-\frac{1}{3}x + 3y - \frac{20}{3}) = 0$ (iii) $(-\frac{1}{3}x - 2y - \frac{20}{3}) = 0$ (iv) $(-\frac{1}{3}x + y - \frac{20}{3}) = 0$

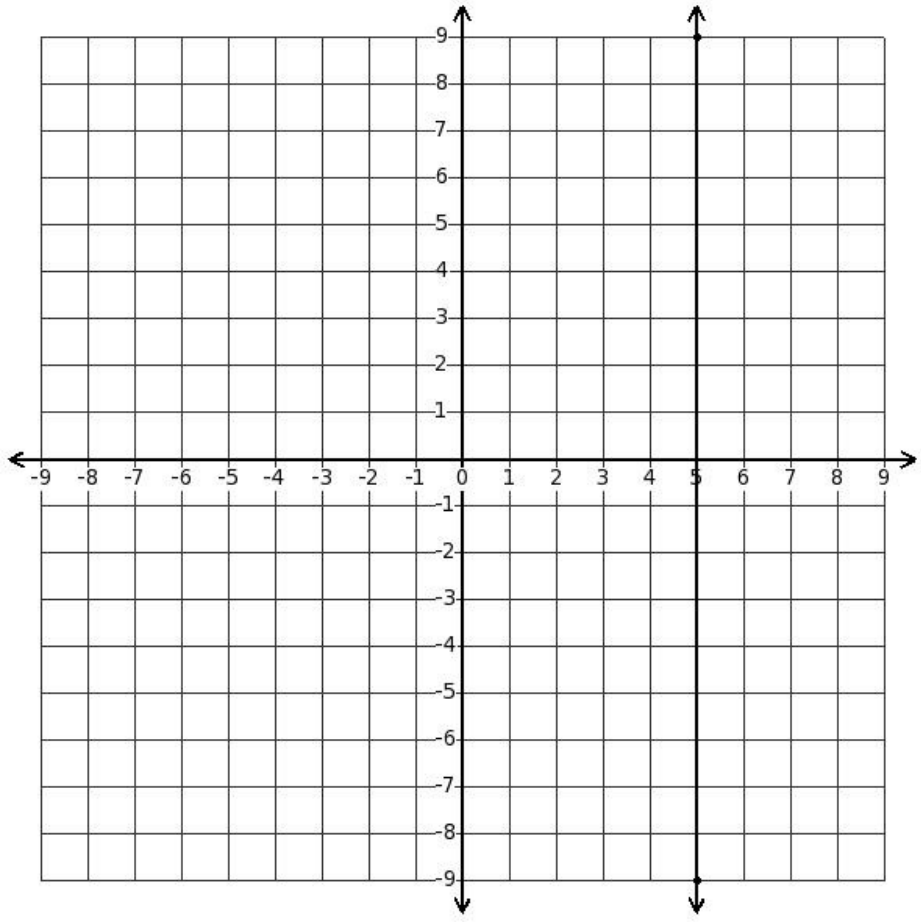
(v) $(-x + y - \frac{20}{3}) = 0$

34. Find the equation of the displayed line



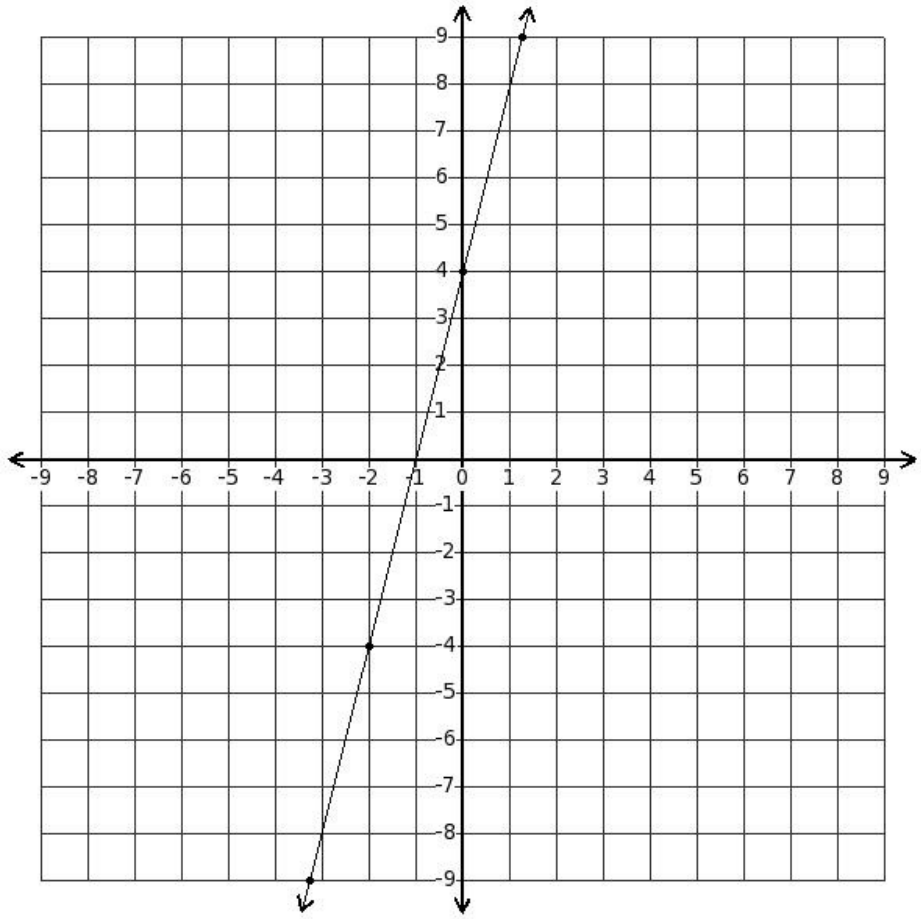
(i) $y=(-1)$ (ii) $y=0$ (iii) $x=(-1)$ (iv) $y=(-2)$ (v) $3y=(-1)$

35. Find the equation of the displayed line



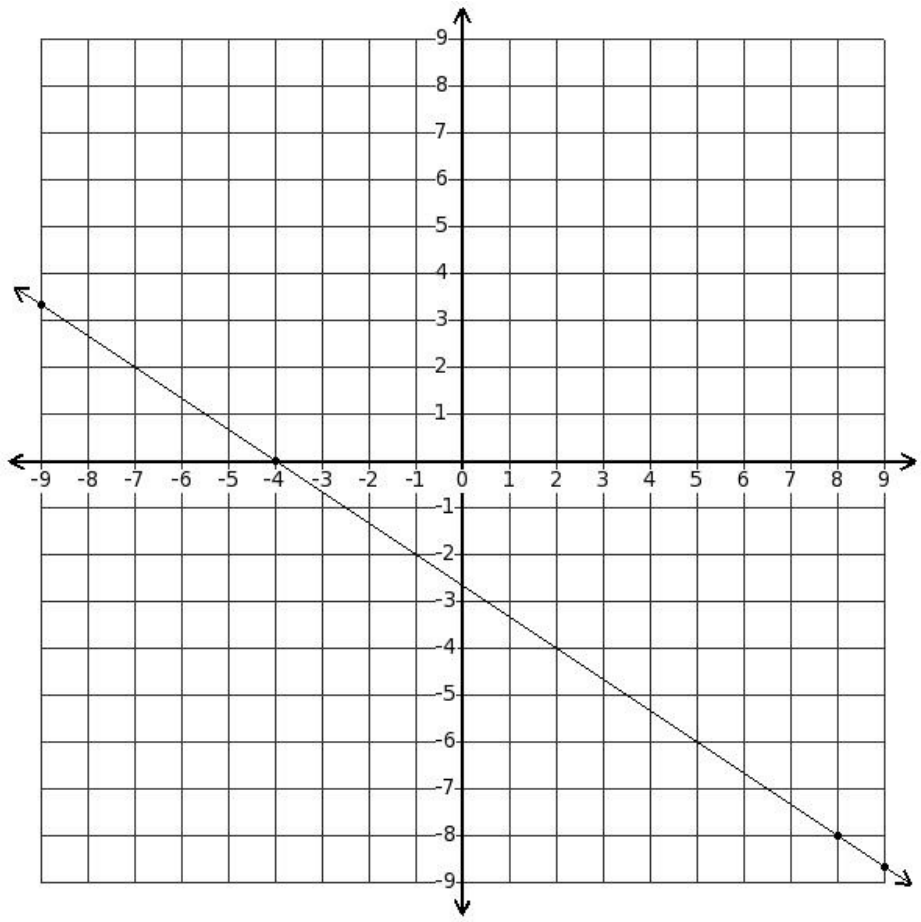
(i) $x=6$ (ii) $x=4$ (iii) $x=5$ (iv) $y=5$ (v) $4x=5$

36. Find the equation of the line passing through the points $((-2),(-4))$ and $(0,4)$



(i) $(-8x+2y)=0$ (ii) $(9x-2y+8)=0$ (iii) $(-8x+2y-10)=0$ (iv) $(7x-2y+8)=0$ (v) $(8x-2y+8)=0$

37. Find the slope of the displayed line



(i) 0 (ii) -2 (iii) $(\frac{-4}{3})$ (iv) $(\frac{-2}{5})$ (v) $(\frac{-2}{3})$

38. The equation of the line in slope intercept form is

a) $x = cy + m$
b) $y = cx + m$
c) $x = my + c$
d) $y = mx + c$

(i) {b,d} (ii) {a,d} (iii) {c,a,d} (iv) {d}

39. The equation of the line in point slope form is

a) $(y - y_1)m = (x - x_1)$
b) $(y - x_1) = m(x - y_1)$
c) $(y_1 - y)m = (x_1 + x)$
d) $(y - y_1) = m(x - x_1)$

(i) {a,d} (ii) {b,d} (iii) {d} (iv) {c,a,d}

40. The equation of the line passing through the points (x_1, y_1) and (x_2, y_2) is

a) $(y - y_1) = \frac{y_2 + y_1}{x_2 + x_1}(x - x_1)$
b) $(x - x_1) = \frac{x_2 - x_1}{y_2 - y_1}(y - y_1)$
c) $(y - y_1) = \frac{y_2 - y_1}{x_2 - x_1}(x - x_1)$
d) $(x - x_1) = \frac{x_2 + x_1}{y_2 + y_1}(y - y_1)$

(i) {b,c} (ii) {a,b} (iii) {d,c} (iv) {a,c,b} (v) {a,d,b}

41. The equation of the x-axis is

a) $y = 1$
b) $y = 0$
c) $x = 0$
d) $x = y$
e) $x = 1$

(i) {c,b} (ii) {d,e,b} (iii) {a,b} (iv) {b}

42. Find the equation of the line through $(5, (-1))$ and y-intercept 2

(i) $(3x + 5y - 10) = 0$ (ii) $(3x + 8y - 10) = 0$ (iii) $(x + 3y - 2) = 0$ (iv) $(x + 5y - 2) = 0$ (v) $(2x + 5y - 10) = 0$

43. Find the equation of the line through $((-1), 2)$ and x-intercept 5

(i) $(3x - y + 5) = 0$ (ii) $(-2x - 3y + 10) = 0$ (iii) $(3x + 2y + 5) = 0$ (iv) $(-3x - 6y + 10) = 0$

(v) $(-2x - 6y + 10) = 0$

44. Find the x-intercept of the line passing through points $((-4), (-6))$ and $((-8), (-5))$

(i) -25 (ii) -28 (iii) -31 (iv) -29 (v) -7

45. Find the y-intercept of the line passing through points $((-8),(-3))$ and $((-7),(-5))$

(i) -20 (ii) -22 (iii) -19 (iv) $(-9\frac{1}{2})$ (v) -17

46. The slope of the line passing through the points (x_1,y_1) and (x_2,y_2)

(i) $\frac{x_2+x_1}{y_2+y_1}$ (ii) $\frac{y_2-y_1}{x_2-x_1}$ (iii) $\frac{x_2-y_1}{y_2-x_1}$ (iv) $\frac{x_2-x_1}{y_2-y_1}$ (v) $\frac{x_2+y_1}{y_2+x_1}$

47. $((-1),4),((-4),(-6))$ and $((-7),(-7))$ are the vertices of triangle ABC.
Find the equation of the altitude of the triangle through vertex C

(i) $(3x+8y+91)=0$ (ii) $(6x+11y+90)=0$ (iii) $(3x+10y+91)=0$ (iv) $(3x+13y+91)=0$

(v) $(3x+y-1)=0$

48. $((-6),(-2)),(3,(-6))$ and $(1,0)$ are the vertices of triangle ABC.
Find the equation of the median of the triangle through vertex C

(i) $(-5x-\frac{11}{2}y-18)=0$ (ii) $(4x-\frac{7}{2}y-4)=0$ (iii) $(4x-\frac{5}{2}y-4)=0$ (iv) $(4x-\frac{3}{2}y-4)=0$

(v) $(x+8y+22)=0$

49. Equation of the line passing through origin and the point of intersection of lines $(12x-y-77)=0$ and $(4x-2y-34)=0$

(i) $(2x-7y-37)=0$ (ii) $(2x-5y-37)=0$ (iii) $(-5x-6y)=0$ (iv) $(-5x-3y)=0$ (v) $(-6x-6y)=0$

50. Equation of the line passing through $(3,1)$ and the point of intersection of lines $(10x-7y-4)=0$ and $(5x-8y-11)=0$

(i) $(-3x+6y+5)=0$ (ii) $(-2x-2y)=0$ (iii) $(-4x+4y+5)=0$ (iv) $(-3x+4y+5)=0$ (v) $(-2x+y)=0$

51. Convert the line equation $ax+by+c=0$ into slope-intercept form

(i) $y=\frac{b}{a}x-\frac{c}{b}$ (ii) $y=\frac{-b}{a}x-\frac{c}{b}$ (iii) $y=\frac{b}{a}x-\frac{b}{c}$ (iv) $y=\frac{-a}{b}x-\frac{c}{b}$

52. Convert the line equation $ax+by+c=0$ into intercept form

(i) $\frac{x}{(\frac{b}{c})}+\frac{y}{(\frac{a}{c})}=1$ (ii) $\frac{x}{(\frac{a}{-c})}+\frac{y}{(\frac{b}{-c})}=1$ (iii) $\frac{x}{(\frac{b}{-c})}+\frac{y}{(\frac{a}{-c})}=1$ (iv) $\frac{x}{(\frac{-c}{a})}+\frac{y}{(\frac{-c}{b})}=1$ (v) $\frac{x}{(\frac{a}{c})}+\frac{y}{(\frac{b}{c})}=1$

53. The points $B(0,6)$ and $D((-8),8)$ are the opposite vertices of a square ABCD. Find the equation of the diagonal AC

(i) $(8x-2y+46)=0$ (ii) $(2x+5y-48)=0$ (iii) $(7x-2y+46)=0$ (iv) $(2x+8y-48)=0$ (v) $(8x+46)=0$

54. Find the point of intersection of $(3y+12)=0$ and the line joining points $(3,(-7))$ and $(3,8)$

(i) $(5,(-2))$ (ii) $(2,(-3))$ (iii) $(4,(-5))$ (iv) $(1,(-6))$ (v) $(3,(-4))$

55. Find the point of intersection of $(-6x+12)=0$ and the line joining points $((-7),(-1))$ and $((-6),8)$

(i) $(3,79)$ (ii) $(1,81)$ (iii) $(0,78)$ (iv) $(4,82)$ (v) $(2,80)$

56. Find the relation between x and y such that the point $P(x,y)$ is equidistant from points $(0,(-3))$ and $((-4),(-5))$

(i) $(4x+2y+16)=0$ (ii) $(3x+2y+16)=0$ (iii) $(7x+3y+9)=0$ (iv) $(7x+y+9)=0$ (v) $(4x+4y+16)=0$

57. The equation of the line passing through $((-6),4)$ and having the same y-intercept as $(11x-4y-64)=0$ is

(i) $(-20x-3y-96)=0$ (ii) $(-2x+14y-68)=0$ (iii) $(-20x-6y-96)=0$ (iv) $(-21x-6y-96)=0$

(v) $(-2x+12y-68)=0$

58. The slope of a line is the tangent of the angle made by the line with the

(i) positive x-axis (ii) negative y-axis (iii) negative x-axis (iv) positive y-axis

59. Find the relation between x and y if the points $(x,y),(2,(-6))$ and $(7,1)$ are collinear

(i) $(3x+y-22)=0$ (ii) $(6x+2y-44)=0$ (iii) $(4x-6y-44)=0$ (iv) $(-3x-y+22)=0$

(v) $(7x-5y-44)=0$

60. If the equation of a line is $y=mx+c$, what is the intercept form of the equation?

(i) $\frac{x}{(\frac{-c}{m})}+\frac{y}{(\frac{c}{1})}=1$ (ii) $\frac{x}{(\frac{m}{c})}+\frac{y}{(\frac{c}{m})}=1$ (iii) $\frac{x}{(\frac{m}{-c})}+\frac{y}{(\frac{c}{1})}=1$ (iv) $\frac{x}{(\frac{m}{-c})}+\frac{y}{(\frac{m}{c})}=1$

61. Which of the following lines pass through the origin?

(i) $(-9x+4y-43)=0$ (ii) $(4x+y-6)=0$ (iii) $(3x-9y-24)=0$ (iv) $(2x-y)=0$ (v) $(2x+4y-10)=0$

62. Which of the following lines do not pass through the origin?

(i) $(-5x+2y)=0$ (ii) $(8x-6y)=0$ (iii) $(3x+2y)=0$ (iv) $(-5x+8y+30)=0$ (v) $(-3x-2y)=0$

63. Which of the following equations satisfy the given points $((-2),\frac{76}{17}),((-1),\frac{65}{17}),(0,\frac{54}{17}),(1,\frac{43}{17}),(2,\frac{32}{17})$?

(i) $(-11x-17y+54)=0$ (ii) $(2x+3y-1)=0$ (iii) $y=7$ (iv) $x=9$ (v) $x=(\frac{11}{17}y+\frac{76}{17})$

64. Which of the following equations satisfy the given points $((-2),\frac{1}{6}),((-1),(-\frac{2}{3})),(0,(-\frac{3}{2})),(1,(-\frac{7}{3})),(2,(-\frac{19}{6}))$?

(i) $(-10x-12y-6)=0$ (ii) $(8x+5y-4)=0$ (iii) $y=(-\frac{5}{6}x-\frac{3}{2})$ (iv) $x=(-3)$ (v) $y=1$

65. Which of the following equations satisfy the given points $((-2),2),((-1),\frac{7}{6}),(0,\frac{1}{3}),(1,(-\frac{1}{2})),(2,(-\frac{4}{3}))$?

(i) $(-14x-5y-12)=0$ (ii) $y=(-2)$ (iii) $y=(-\frac{14}{5}x+\frac{4}{5})$ (iv) $x=1$ (v) $(5x+6y-2)=0$

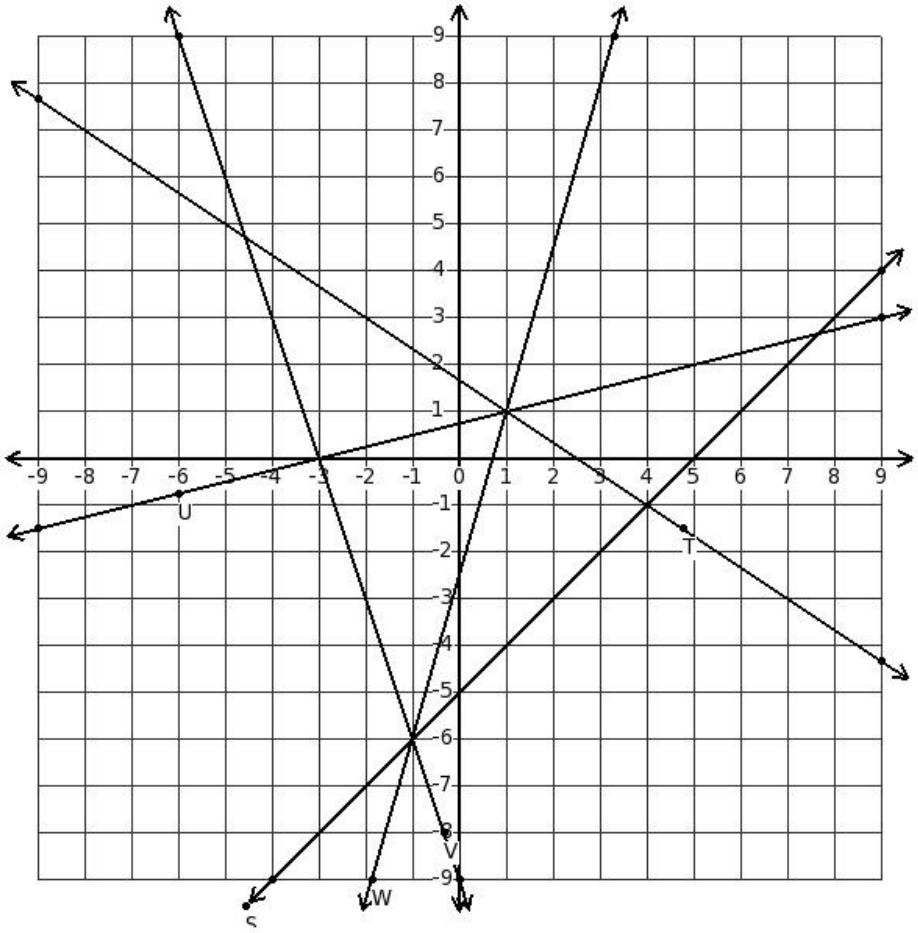
66. Which of the following equations satisfy the given points $((-2),3),((-1),3),(0,3),(1,3),(2,3)$?

(i) $x=(\frac{6}{7}y-\frac{4}{7})$ (ii) $x=2$ (iii) $y=3$ (iv) $(8x+7y-2)=0$ (v) $y=(-\frac{6}{7}x+\frac{33}{7})$

67. Which of the following equations satisfy the given points $(4,(-2)),(4,(-1)),(4,0),(4,1),(4,2)$?

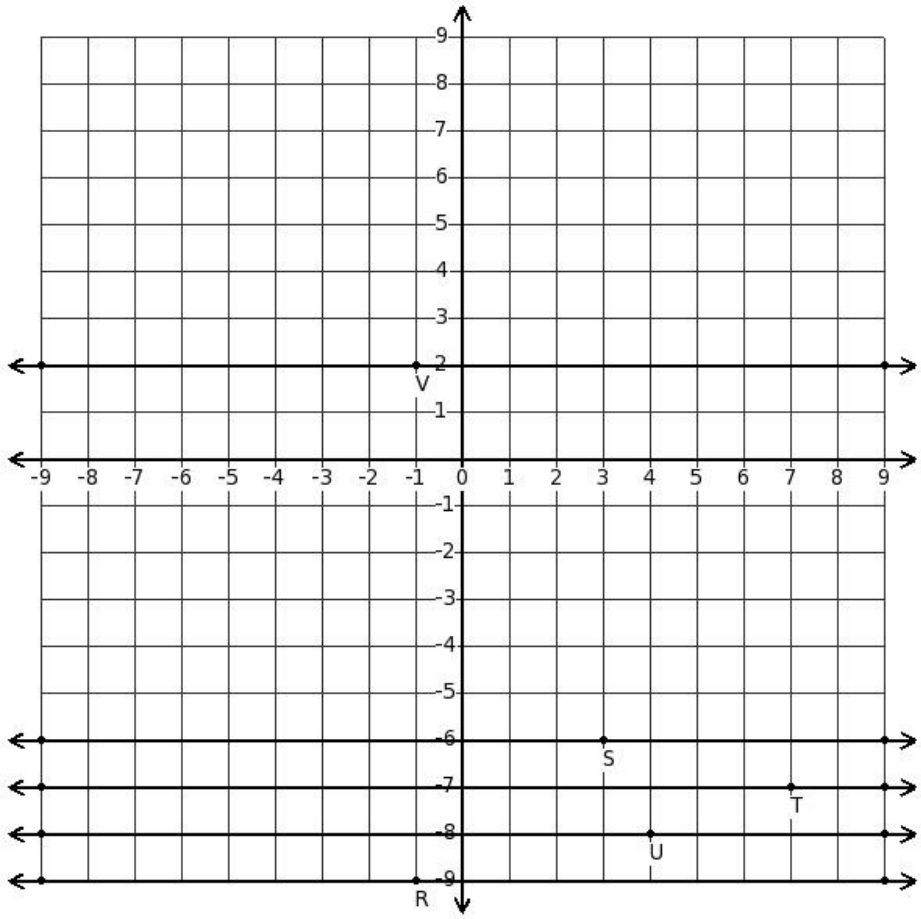
(i) $(-18x-11y+9)=0$ (ii) $(3x+6y-2)=0$ (iii) $x=(\frac{18}{11}y+\frac{188}{11})$ (iv) $y=(-8)$ (v) $x=4$

68. Which of the displayed lines represent the equation $(5x-5y-25)=0$?



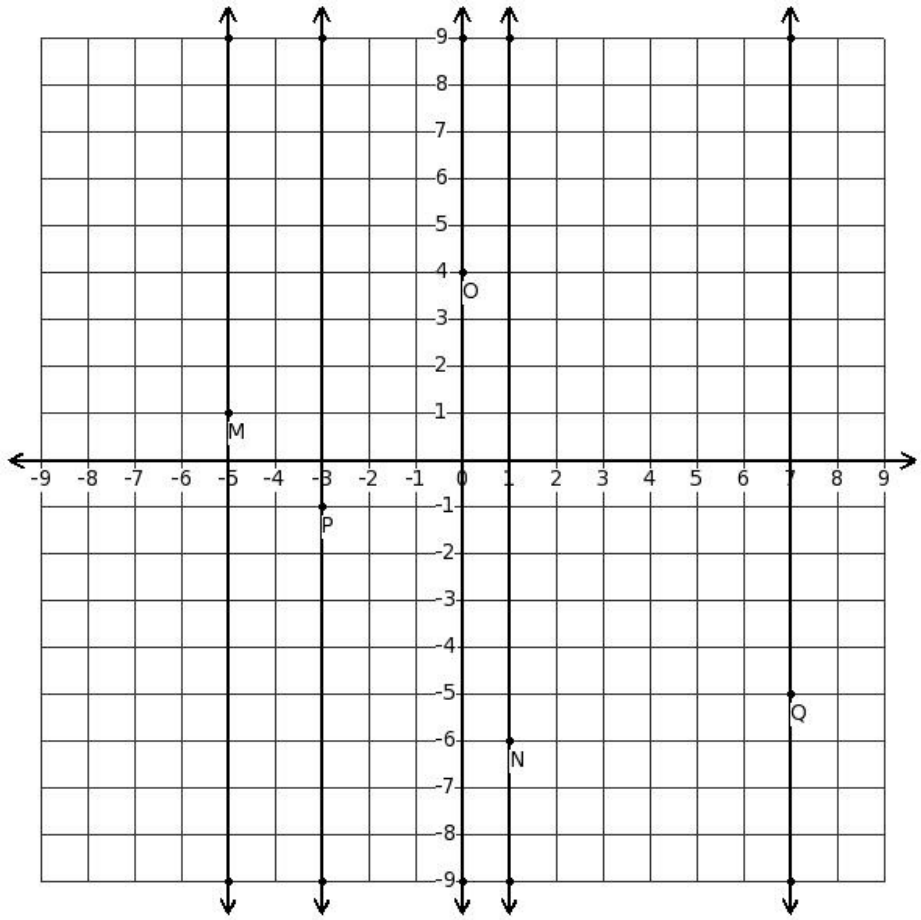
(i) line with point U (ii) line with point T (iii) line with point W (iv) line with point V (v) line with point S

69. Which of the displayed lines represent the equation $y=(-9)$



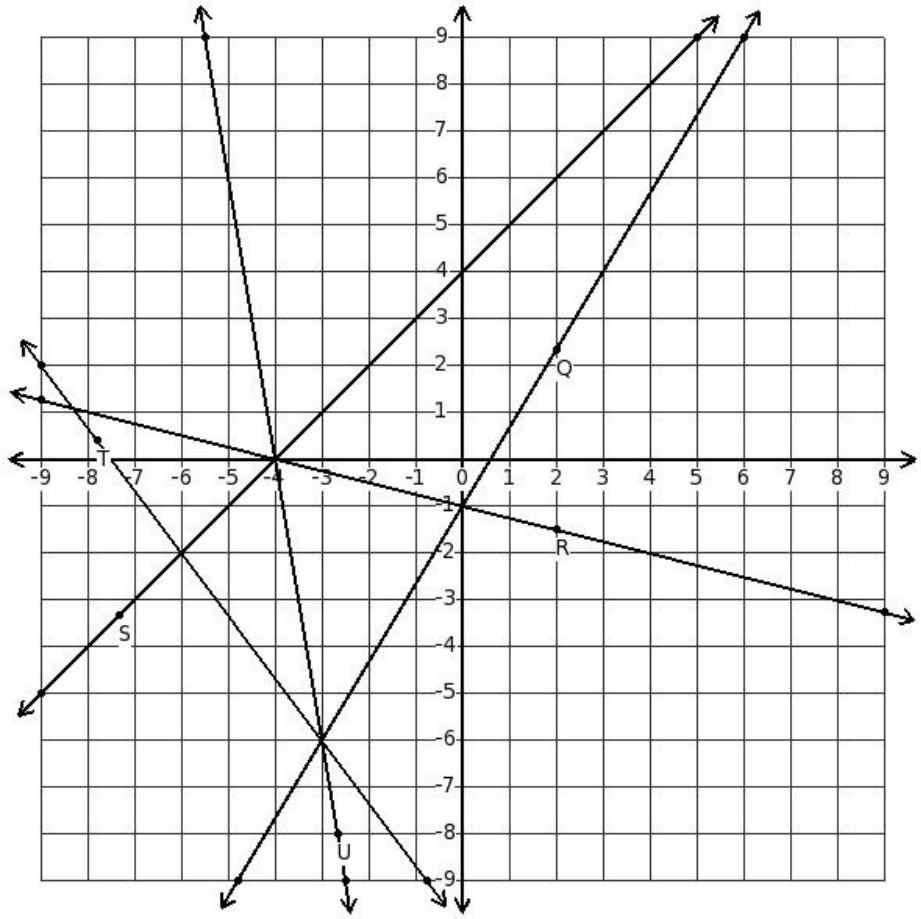
(i) line with point T (ii) line with point R (iii) line with point U (iv) line with point V (v) line with point S

70. Which of the displayed lines represent the equation $x=(-5)$



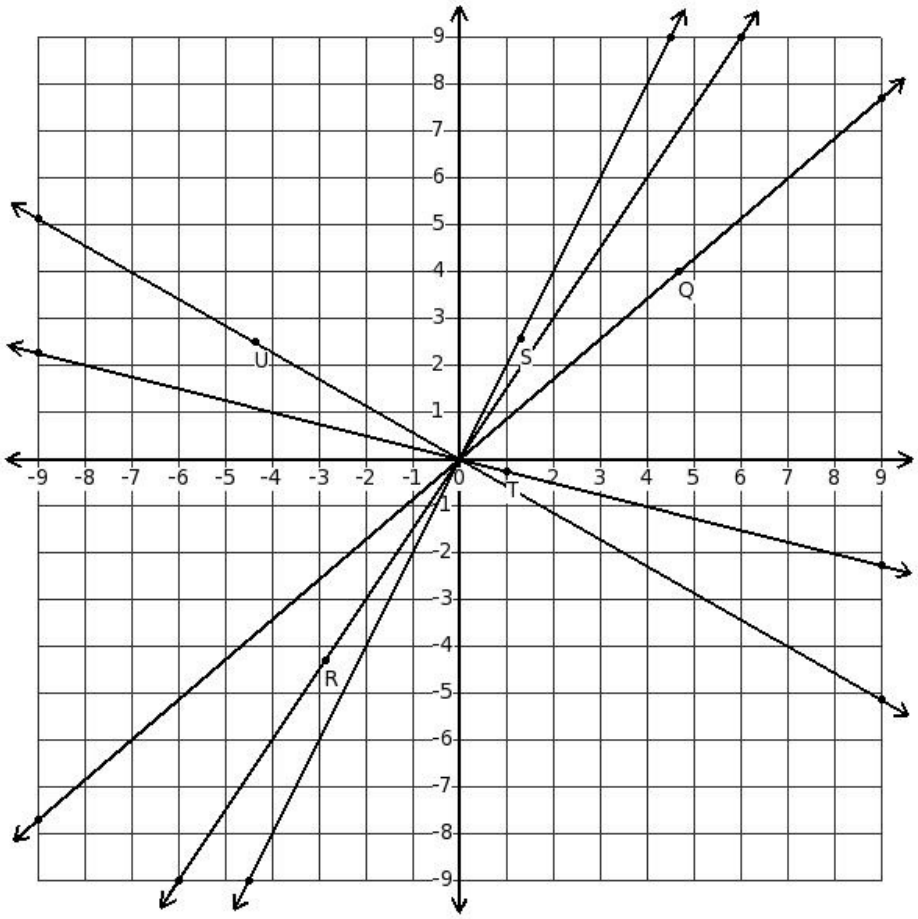
(i) line with point O (ii) line with point Q (iii) line with point P (iv) line with point N (v) line with point M

71. Which of the displayed lines represent the equation $y=(\frac{5}{3}x-1)$



(i) line with point T (ii) line with point Q (iii) line with point R (iv) line with point S (v) line with point U

72. Which of the displayed lines represent the equation $y=\frac{6}{7}x$



(i) line with point R (ii) line with point S (iii) line with point Q (iv) line with point U (v) line with point T

73. Find the coordinates of the orthocentre of the triangle whose vertices are $((-4),(-2)),(6,0)$ and $((-6),(-6))$

(i) $((-\frac{29}{3}),\frac{25}{3})$ (ii) $((-\frac{23}{3}),\frac{19}{3})$ (iii) $((-\frac{20}{3}),\frac{28}{3})$ (iv) $((-\frac{32}{3}),\frac{16}{3})$ (v) $((-\frac{26}{3}),\frac{22}{3})$

74. The point of intersection of x-axis and y-axis

(i) $(0,8)$ (ii) $(1,0)$ (iii) $(0,0)$ (iv) $(2,0)$ (v) $(1,1)$

75. KM is the straight line of length $\sqrt{37}$ units. If K has the coordinates $(8,7)$ and M has coordinates $(k,1)$, find the possible values of k

(i) $(11,9)$ (ii) $(10,6)$ (iii) $(7,5)$ (iv) $(9,7)$ (v) $(8,8)$

76. Find the point of intersection of x-axis and the line joining points $(6,(-6))$ and $(3,4)$

(i) $(14,0)$ (ii) $((-\frac{21}{5}),0)$ (iii) $(\frac{21}{5},0)$ (iv) $(0,(-14))$

77. Find the point of intersection of y-axis and the line joining points $((-7),7)$ and $(3,5)$

(i) $((-28),0)$ (ii) $(0,(-\frac{28}{5}))$ (iii) $(0,\frac{28}{5})$ (iv) $(0,28)$

78. The points $B(1,2)$ and $D((-9),2)$ are the opposite vertices of a square ABCD. Find the other two vertices

(i) $((-3),(-4)),((-4),7)$ (ii) $((-4),(-3)),((-5),8)$ (iii) $((-4),(-3)),((-4),7)$ (iv) $((-2),(-1)),((-4),7)$

(v) $((-6),(-5)),((-4),7)$

Assignment Key

1) (v)	2) (ii)	3) (v)	4) (iii)	5) (iv)	6) (i)
7) (iii)	8) (v)	9) (i)	10) (ii)	11) (ii)	12) (ii)
13) (ii)	14) (ii)	15) (ii)	16) (iii)	17) (v)	18) (i)
19) (iv)	20) (ii)	21) (ii)	22) (v)	23) (ii)	24) (iv)
25) (iv)	26) (iii)	27) (iii)	28) (iv)	29) (v)	30) (v)
31) (i)	32) (iii)	33) (iv)	34) (i)	35) (iii)	36) (v)
37) (v)	38) (iv)	39) (iii)	40) (i)	41) (iv)	42) (i)
43) (v)	44) (ii)	45) (iii)	46) (ii)	47) (iii)	48) (iii)
49) (iii)	50) (iv)	51) (iv)	52) (iv)	53) (i)	54) (v)
55) (v)	56) (i)	57) (iii)	58) (i)	59) (v)	60) (i)
61) (iv)	62) (iv)	63) (i)	64) (iii)	65) (v)	66) (iii)
67) (v)	68) (v)	69) (ii)	70) (v)	71) (ii)	72) (iii)
73) (v)	74) (iii)	75) (iv)	76) (iii)	77) (iii)	78) (iii)