EduSahara™ Assignment

Name : Equation of a Straight Line

Chapter : Coordinate Geometry

Grade : SSC Grade X

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

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

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

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

3. Find the y-intercept of the line $(-2x+10y-70)=0$

   (i) 7 (ii) 8 (iii) 6 (iv) 5 (v) 10

4. Any line parallel to x-axis is

   (i) an oblique line (ii) a horizontal line (iii) a vertical line (iv) a curved line

5. Any line parallel to y-axis is

   (i) a vertical line (ii) a curved line (iii) a horizontal line (iv) an oblique line

6. A line which is neither parallel to x-axis nor y-axis is

   (i) a curved line (ii) an oblique line (iii) a horizontal line (iv) a vertical line

7. Which of the following are true?

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

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

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

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

9. The coordinates of the origin are

   (i) (1,0) (ii) (1,1) (iii) (6,0) (iv) (0,7) (v) (0,0)

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

    (i) (1,1) (ii) (4,0) (iii) (0,0) (iv) (0,7) (v) (1,0)

11. The line $(9x+7y+4)=0$ bisects which of the following pairs of points?

    (i) $((-1),(-4)),(6,1)$ (ii) $((-3),(-6)),(6,1)$ (iii) $((-3),(-6)),(5,2)$ (iv) $((-5),(-8)),(6,1)$

    (v) $((-2),(-7)),(6,1)$

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

(i) $(5x-2y-9)=0$ (ii) $(4x-7y)=0$ (iii) $(6x-6y-18)=0$ (iv) $(-10x-3y-31)=0$

(v) $(-x+11y-37)=0$

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

(i) $(-x+10y+29)=0$ (ii) $(8x-4y)=0$ (iii) $(-3x+y)=0$ (iv) $(7x+6y)=0$ (v) $(-x-4y)=0$

14. Find the set of points satisfying the equation $(-16x+9y-15)=0$

(i) $((-2),(-\frac{17}{9})),((-1),(-\frac{1}{9})),(0,\frac{5}{3}),(1,\frac{31}{9}),(4,\frac{65}{9})$ (ii) $((-2),(-\frac{17}{9})),((-1),(-\frac{1}{9})),(0,\frac{5}{3}),(0,\frac{40}{9}),(2,\frac{47}{9})$

(iii) $((-2),(-\frac{17}{9})),((-1),(-\frac{1}{9})),((-2),(-\frac{1}{3})),(1,\frac{31}{9}),(2,\frac{47}{9})$

(iv) $((-2),(-\frac{17}{9})),((-1),(-\frac{1}{9})),(0,\frac{5}{3}),(1,\frac{31}{9}),(2,\frac{47}{9})$

(v) $((-2),(-\frac{17}{9})),((-1),(-\frac{1}{9})),(1,\frac{2}{3}),(1,\frac{31}{9}),(2,\frac{47}{9})$

15. Find the set of points satisfying the equation $y=(-15x+126)$

(i) $((-2),156),((-1),141),(0,126),(1,111),(4,98)$ (ii) $((-2),156),((-1),141),(0,126),(1,111),(2,96)$

(iii) $((-2),156),((-1),141),(0,126),(0,112),(2,96)$ (iv) $((-2),156),((-1),141),((-2),124),(1,111),(2,96)$

(v) $((-2),156),((-1),141),(1,125),(1,111),(2,96)$

16. Find the set of points satisfying the equation $x=(\frac{1}{2}y+\frac{7}{2})$

(i) $((-2),(-11)),((-1),(-9)),(0,(-7)),(1,(-5)),(2,(-3))$

(ii) $((-2),(-11)),((-1),(-9)),((-2),(-9)),(1,(-5)),(2,(-3))$

(iii) $((-2),(-11)),((-1),(-9)),(1,(-8)),(1,(-5)),(2,(-3))$

(iv) $((-2),(-11)),((-1),(-9)),(0,(-7)),(0,(-4)),(2,(-3))$

(v) $((-2),(-11)),((-1),(-9)),(0,(-7)),(1,(-5)),(4,(-1))$

17. Find the set of points satisfying the equation $y=(-\frac{3}{8}x)$

(i) $((-2),\frac{3}{4}),((-1),\frac{3}{8}),(1,(-1)),(1,(-\frac{3}{8})),(2,(-\frac{3}{4}))$

(ii) $((-2),\frac{3}{4}),((-1),\frac{3}{8}),((-2),(-2)),(1,(-\frac{3}{8})),(2,(-\frac{3}{4}))$ (iii) $((-2),\frac{3}{4}),((-1),\frac{3}{8}),(0,0),(1,(-\frac{3}{8})),(4,\frac{5}{4})$

(iv) $((-2),\frac{3}{4}),((-1),\frac{3}{8}),(0,0),(0,\frac{5}{8}),(2,(-\frac{3}{4}))$ (v) $((-2),\frac{3}{4}),((-1),\frac{3}{8}),(0,0),(1,(-\frac{3}{8})),(2,(-\frac{3}{4}))$

18. Find the set of points satisfying the equation $(7x+18y-6)=0$

(i) $((-2),\frac{10}{9}),((-1),\frac{13}{18}),(0,\frac{1}{3}),(0,\frac{17}{18}),(2,(-\frac{4}{9}))$

(ii) $((-2),\frac{10}{9}),((-1),\frac{13}{18}),(1,(-\frac{2}{3})),(1,(-\frac{1}{18})),(2,(-\frac{4}{9}))$

(iii) $((-2),\frac{10}{9}),((-1),\frac{13}{18}),((-2),(-\frac{5}{3})),(1,(-\frac{1}{18})),(2,(-\frac{4}{9}))$

(iv) $((-2),\frac{10}{9}),((-1),\frac{13}{18}),(0,\frac{1}{3}),(1,(-\frac{1}{18})),(4,\frac{14}{9})$ (v) $((-2),\frac{10}{9}),((-1),\frac{13}{18}),(0,\frac{1}{3}),(1,(-\frac{1}{18})),(2,(-\frac{4}{9}))$

19. Find the set of points satisfying the equation $y=(-9)$

(i) $((-2),(-9)),((-1),(-9)),(0,(-9)),(1,(-9)),(4,(-7))$

(ii) $((-2),(-9)),((-1),(-9)),(0,(-9)),(1,(-9)),(2,(-9))$

(iii) $((-2),(-9)),((-1),(-9)),(1,(-10)),(1,(-9)),(2,(-9))$

(iv) $((-2),(-9)),((-1),(-9)),((-2),(-11)),(1,(-9)),(2,(-9))$

(v) $((-2),(-9)),((-1),(-9)),(0,(-9)),(0,(-8)),(2,(-9))$

20. Find the set of points satisfying the equation $x=2$

(i) $(2,(-2)),(2,(-1)),(2,0),(2,1),(4,4)$ (ii) $(2,(-2)),(2,(-1)),(2,0),(2,1),(2,2)$

(iii) $(2,(-2)),(2,(-1)),(2,0),(1,2),(2,2)$ (iv) $(2,(-2)),(2,(-1)),(0,(-2)),(2,1),(2,2)$

(v) $(2,(-2)),(2,(-1)),(3,(-1)),(2,1),(2,2)$

21. Which of the following equations satisfy the given points $((-2),(-\frac{8}{3})),((-1),(-\frac{40}{9})),(0,(-\frac{56}{9})),(1,(-8)),(2,(-\frac{88}{9}))$?

(i) $x=(-1)$ (ii) $(9x+10y-5)=0$ (iii) $(-16x-9y-56)=0$ (iv) $y=(-\frac{16}{9}x-\frac{43}{9})$ (v) $x=(\frac{16}{9}y+\frac{13}{3})$

22. Which of the following equations satisfy the given points $((-2),\frac{76}{7}),((-1),\frac{67}{7}),(0,\frac{58}{7}),(1,7),(2,\frac{40}{7})$?

(i) $y=(-\frac{9}{7}x+\frac{58}{7})$ (ii) $(-9x-7y+17)=0$ (iii) $y=(-2)$ (iv) $x=(\frac{9}{7}y+\frac{74}{7})$ (v) $x=8$

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

(i) $y=(-2)$ (ii) $x=(\frac{14}{5}y+\frac{53}{5})$ (iii) $(5x+6y-4)=0$ (iv) $x=5$ (v) $(-14x-5y-17)=0$

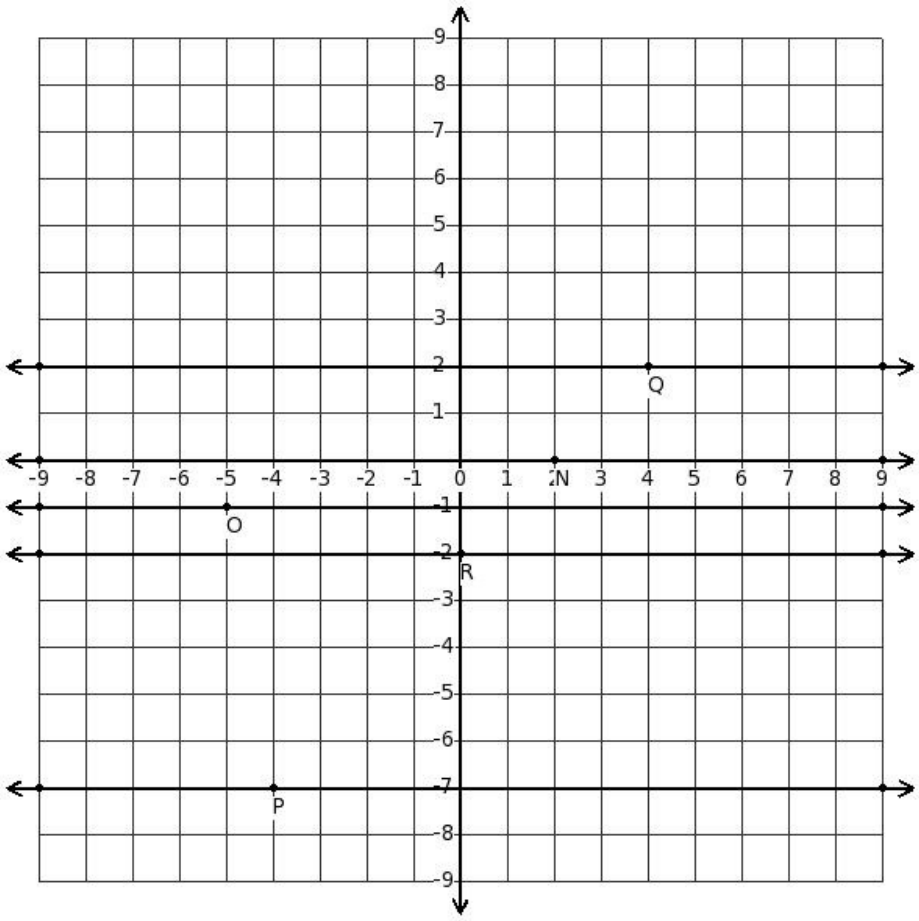
24. Which of the following equations satisfy the given points $((-2),2),((-1),2),(0,2),(1,2),(2,2)$?

(i) $x=(-3)$ (ii) $y=2$ (iii) $(9x+16y-8)=0$ (iv) $(-9x-12y+15)=0$ (v) $y=(-\frac{3}{4}x-\frac{1}{4})$

25. Which of the following equations satisfy the given points $((-8),(-2)),((-8),(-1)),((-8),0),((-8),1),((-8),2)$?

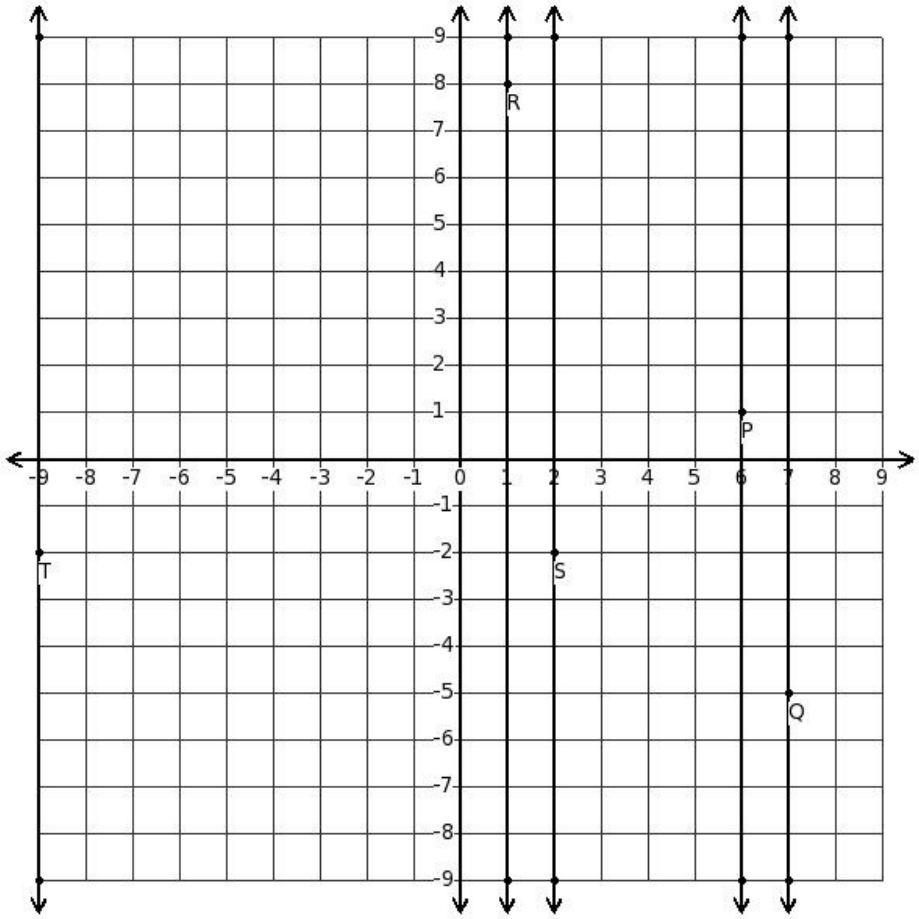
(i) $x=(\frac{11}{16}y-\frac{27}{2})$ (ii) $(12x+7y-6)=0$ (iii) $y=(-\frac{11}{16}x+\frac{5}{2})$ (iv) $(-11x-16y-29)=0$ (v) $x=(-8)$

26. Which of the displayed lines represent the equation $y=0$



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

27. Which of the displayed lines represent the equation $x = 6$



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

Assignment Key

1) (ii)	2) (iv)	3) (i)	4) (ii)	5) (i)	6) (ii)
7) (ii)	8) (ii)	9) (v)	10) (iii)	11) (ii)	12) (ii)
13) (i)	14) (iv)	15) (ii)	16) (i)	17) (v)	18) (v)
19) (ii)	20) (ii)	21) (iii)	22) (i)	23) (iii)	24) (ii)
25) (v)	26) (iii)	27) (iv)			