EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Equation of a Straight Line

Grade : ICSE Grade X

1. Write the given equation $y=(\frac{8}{9}x+\frac{20}{9})$ in $ax+by+c=0$ form

   (i) $(-\frac{8}{7}x+y-\frac{20}{9})=0$ (ii) $(-\frac{8}{9}x+3y-\frac{20}{9})=0$ (iii) $(-\frac{8}{9}x-2y-\frac{20}{9})=0$ (iv) $(-\frac{8}{11}x+y-\frac{20}{9})=0$

   (v) $(-\frac{8}{9}x+y-\frac{20}{9})=0$

2. Which of the following are true ?

   a) Equations of two parallel lines have the same constant and coefficients of x and y will not be same
   b) Equations of two parallel lines differ in the constant term only, coefficients of x and y will be same
   c) Equations of two parallel lines have the same constant and coefficients of x and y will be same
   d) Equations of two parallel lines differ in the constant and coefficients of x and y will not be same

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

3. The slope of x-axis is

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

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

   (i) (1,0) (ii) (0,4) (iii) (3,0) (iv) (1,1) (v) (0,0)

5. Which of the following are true?

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

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

6. Any line parallel to x-axis is

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

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

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

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

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

9. Find the equation of the line which is parallel to the line $(-x-16y+40)=0$ and making a y-intercept of (-1)

   (i) $(16y+16)=0$ (ii) $(-16x+y+1)=0$ (iii) $(x+19y+16)=0$ (iv) $(-16x-2y+1)=0$ (v) $(x+16y+16)=0$

10. Find the value of k such that $(-x-13y-18)=0$ and $(kx+y-94)=0$ are perpendicular to each other

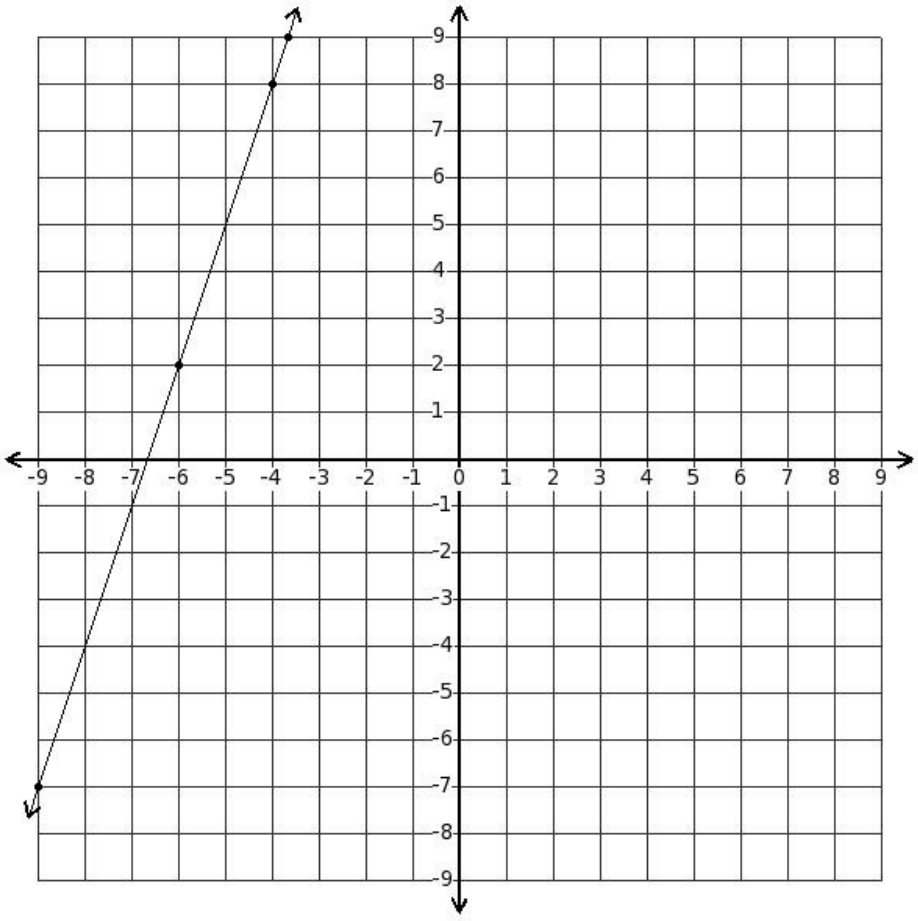
    (i) -14 (ii) -12 (iii) -13 (iv) -16 (v) -10

11. Find equation of the right bisector of the line segment joining the points $(4,(-4))$ and $(1,(-2))$

(i) $(-3x+2y+3)=0$ (ii) $(-3x+2y+20)=0$ (iii) $(2x+3y-15)=0$ (iv) $(-6x+4y+27)=0$

(v) $(-3x+2y+7)=0$

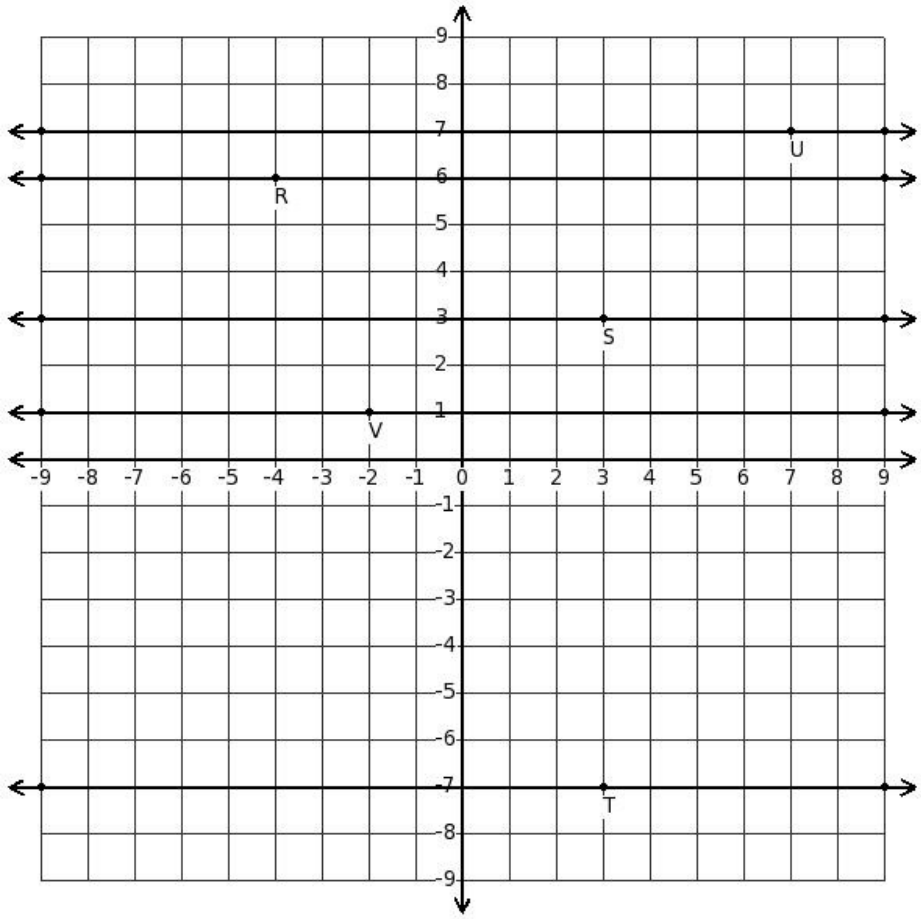
12. Find the equation of the line passing through the points $((-4),8)$ and $((-6),2)$



(i) $(-7x+2y-40)=0$ (ii) $(-6x+2y-34)=0$ (iii) $(-6x+2y-42)=0$ (iv) $(-6x+2y-40)=0$

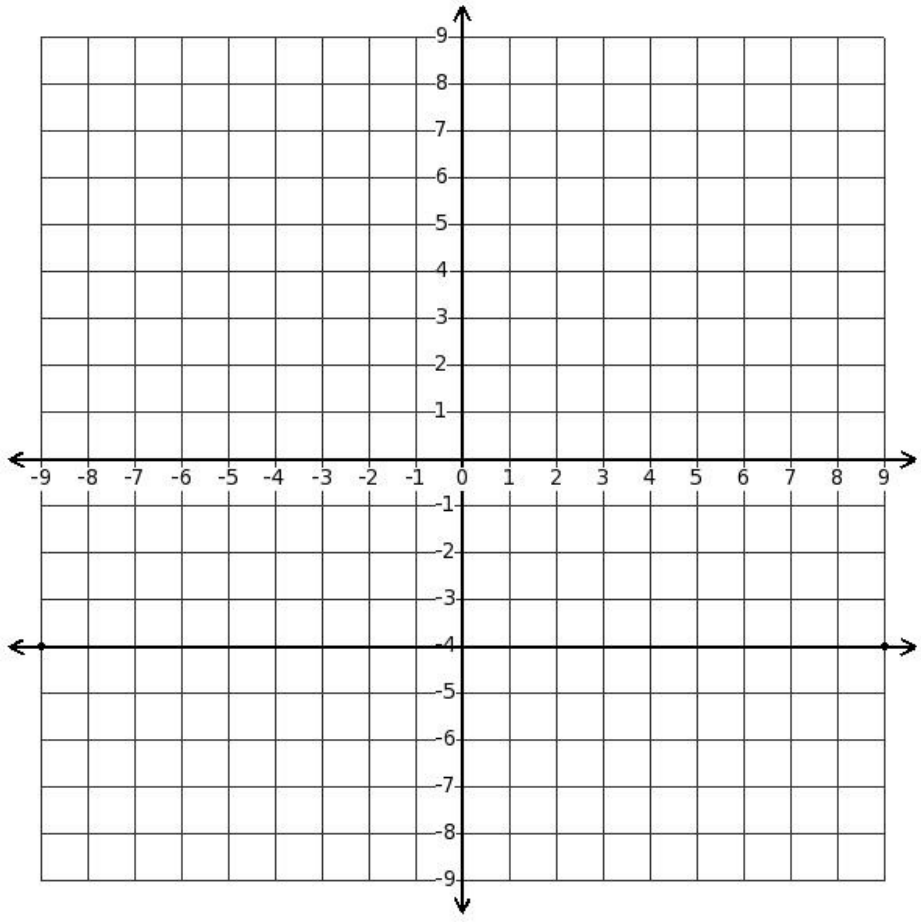
(v) $(-5x+2y-40)=0$

13. Which of the displayed lines represent the equation $y = 6$



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

14. Find the equation of the displayed line



(i) $y = (-3)$ (ii) $3y = (-4)$ (iii) $y = (-5)$ (iv) $y = (-4)$ (v) $x = (-4)$

15. Find the relation between x and y such that the point $P(x,y)$ is equidistant from points $(6,3)$ and $((-8),4)$

(i) $(-8x+48)=0$ (ii) $(-28x+2y-35)=0$ (iii) $(-28x+4y-35)=0$ (iv) $(-29x+2y-35)=0$

(v) $(-8x+46)=0$

16. The equation of the line passing through the point $((-6),6)$ and slope (-11) is

(i) $(-x-11y-60)=0$ (ii) $(6x+6y)=0$ (iii) $(-12x-12y)=0$ (iv) $(-11x-y-60)=0$

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

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

18. Find the point of intersection of x-axis and the line joining points $(3,3)$ and $((-3),(-2))$

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

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

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

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

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

21. Equation of the line passing through origin and the point of intersection of lines $(9x-7y+5)=0$ and $(2x-11y-65)=0$

(i) $(-9x+8y+2)=0$ (ii) $(-7x+6y)=0$ (iii) $(-9x+5y+2)=0$ (iv) $(-8x+6y)=0$ (v) $(-7x+8y)=0$

22. The equation of the line passing through the points $(4,4)$ and $((-7),0)$ is

(i) $(3x-10y+21)=0$ (ii) $(-7x-2y+27)=0$ (iii) $(-x+y)=0$ (iv) $(-4x+11y-28)=0$

23. The points $B(1,4)$ and $D((-7),4)$ are the opposite vertices of a square ABCD. Find the other two vertices

(i) $((-1),2),((-3),8)$ (ii) $((-3),0),((-3),8)$ (iii) $((-5),(-2)),((-3),8)$ (iv) $((-2),(-1)),((-3),8)$

(v) $((-3),0),((-4),9)$

24. The equation of the x-axis is

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

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

25. 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) $(y - x_1) = m(x - y_1)$
d) $(y - y_1) = m(x - x_1)$

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

Assignment Key

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