Name: Chapter Based Worksheet

Chapter: Linear Equations in two Variables

Grade: CBSE Grade IX

License: Non Commercial Use

1. The equation of x-axis is

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

2. Find the set of points satisfying the equation $x = (-\frac{1}{2}y - \frac{3}{2})$

(i)
$$((-2),1),((-1),(-1)),((-2),(-5)),(1,(-5)),(2,(-7))$$

$$(ii) \ ((-2),1),((-1),(-1)),(0,(-3)),(1,(-5)),(4,(-5)) \ (iii) \ ((-2),1),((-1),(-1)),(0,(-3)),(0,(-4)),(2,(-7)) \\$$

(iv)
$$((-2),1),((-1),(-1)),(0,(-3)),(1,(-5)),(2,(-7))$$
 (v) $((-2),1),((-1),(-1)),(1,(-4)),(1,(-5)),(2,(-7))$

3. The equation of the x-axis is

a)
$$x = y$$

b)
$$x = 1$$

c)
$$y = 1$$

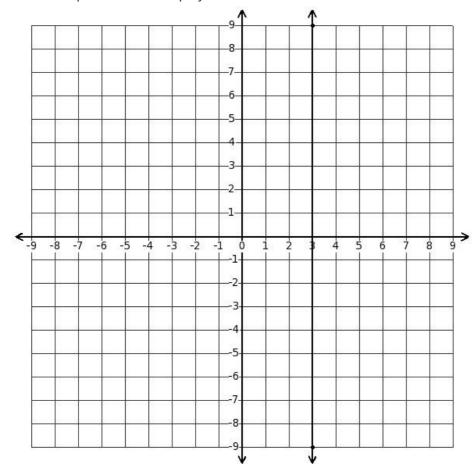
d)
$$x = 0$$

e)
$$y = 0$$

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

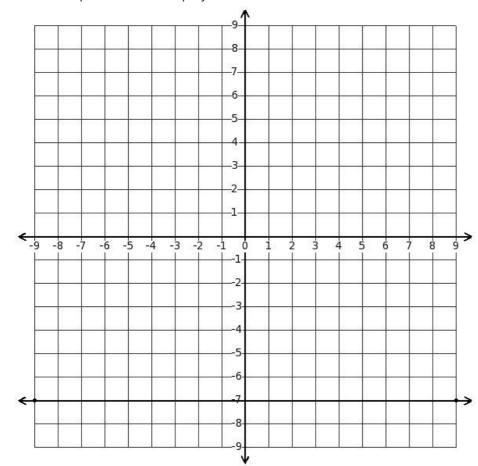
(i)
$$(6x-4y)=0$$
 (ii) $(-7x+2y)=0$ (iii) $(y+7)=0$ (iv) $(-8x-y)=0$ (v) $(6x+y)=0$

5. Find the equation of the displayed line



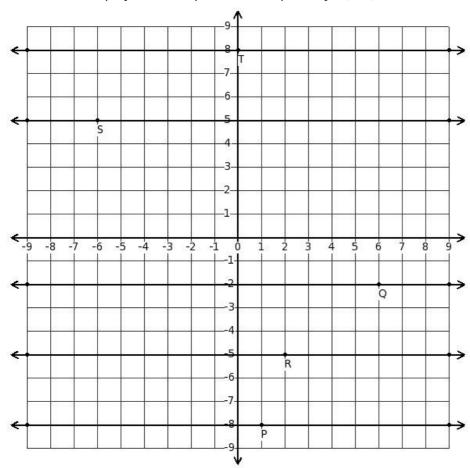
- (i) y=3 (ii) x=3 (iii) x=2 (iv) x=4 (v) 3x=3
- 6. The value of x in terms of other variables and constant in (-4x+5y-9)=(-8x+9y-3) is
 - (i) $x = (y + \frac{5}{2})$ (ii) $x = (2y + \frac{3}{2})$ (iii) $x = (y + \frac{1}{2})$ (iv) $x = (y + \frac{3}{2})$ (v) $x = \frac{3}{2}$
- 7. Which of the following are true?
 - a) Equation of the line passing through origin is y = mx + c
 - b) Equation of the line passing through origin is y = x
 - c) Equation of the line passing through origin is y = mx + 2
 - d) Equation of the line passing through origin is y=mx
 - (i) $\{c,d\}$ (ii) $\{a,b\}$ (iii) $\{a,d,b\}$ (iv) $\{b,d\}$ (v) $\{a,c,b\}$

8. Find the equation of the displayed line



- (i) y=(-7) (ii) x=(-7) (iii) y=(-6) (iv) 4y=(-7) (v) y=(-8)
- 9. A line which is neither parallel to x-axis nor y-axis is
 - (i) a horizontal line (ii) a curved line (iii) an oblique line (iv) a vertical line
- 10. The points B(1,5) and D((-5),5) are the opposite vertices of a square ABCD. Find the equation of the diagonal AC
 - (i) (6x+14)=0 (ii) (6y-30)=0 (iii) (6x+12)=0 (iv) (5x+12)=0 (v) (6y-33)=0
- 11. Write the given equation $y = (-\frac{1}{2}x 6)$ in ax + by + c = 0 form
 - (i) $(\frac{1}{2}x+y+6)=0$ (ii) $(\frac{1}{2}x-2y+6)=0$ (iii) $(\frac{1}{2}x+3y+6)=0$ (iv) $(\frac{1}{4}x+y+6)=0$ (v) (x+y+6)=0

12. Which of the displayed lines represent the equation y=(-8)



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

13. Any line parallel to x-axis is

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

14. Any line parallel to y-axis is

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

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

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

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

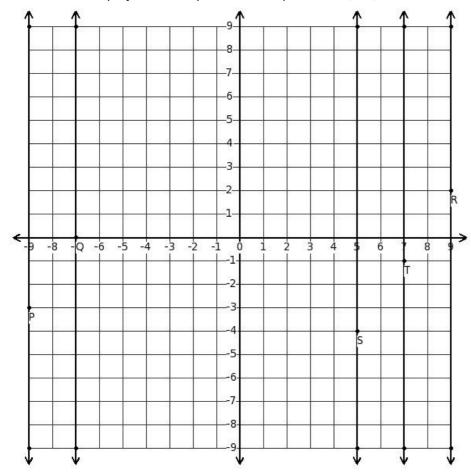
17. The equation of the line passing through the origin and having a slope $m \neq 0$ is

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

18. Which of the following equations satisfy the given points (9,(-2)),(9,(-1)),(9,0),(9,1),(9,2)?

(i) (-12x-11y-29)=0 (ii) (27x+25y-15)=0 (iii) x=9 (iv) $y=(-\frac{12}{11}x+\frac{141}{11})$ (v) $x=(\frac{12}{11}y+\frac{63}{11})$

- 19. Find the set of points satisfying the equation y = (-6x + 28)
 - (i) ((-2),40),((-1),34),(1,27),(1,22),(2,16) (ii) ((-2),40),((-1),34),(0,28),(1,22),(4,18)
 - (iii) ((-2),40),((-1),34),(0,28),(0,23),(2,16) (iv) ((-2),40),((-1),34),((-2),26),(1,22),(2,16)
 - (v) ((-2),40),((-1),34),(0,28),(1,22),(2,16)
- 20. Find the equation of a straight line parallel to x-axis and passing through the point ((-3),(-1))
 - (i) y=(-1) (ii) x=(-3) (iii) y=(-2) (iv) y=2 (v) x=0
- 21. Which of the displayed lines represent the equation x = (-9)

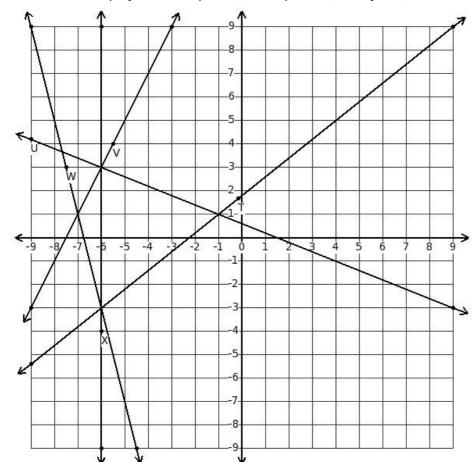


- (i) line with point S (ii) line with point T (iii) line with point R (iv) line with point P (v) line with point Q
- 22. Which of the following is a linear equation in two variable?

(i)
$$(4x-3)=0$$
 (ii) $(-4x-8y-2)=0$ (iii) $(-48x^2-22xy+84x+15y^2+12y-36)=0$

- (iv) (x+7y+7z-5)=0 (v) $20x^2=0$
- 23. Find the equation of a straight line parallel to y-axis and passing through the point (5, (-8))
 - (i) y=(-5) (ii) x=5 (iii) y=(-8) (iv) x=7 (v) x=4

24. Which of the displayed lines represent the equation (4x-5y+9)=0?



- (i) line with point V (ii) line with point T (iii) line with point W (iv) line with point X (v) line with point U
- 25. Which of the following equations satisfy the given points $((-2),3),((-1),\frac{5}{3}),(0,\frac{1}{3}),(1,(-1)),(2,(-\frac{7}{3}))$?
 - (i) (4x+3y-1)=0 (ii) $x=(\frac{11}{9}y-\frac{56}{9})$ (iii) x=(-5) (iv) (-11x-9y-21)=0 (v) $y=(-\frac{11}{9}x-\frac{46}{9})$

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

Copyright © Small Systems Computing Pvt. Ltd.