1. The slope of x-axis is

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

2. The slope of y-axis is

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

3. The slope of the line joining the points $((-4),(-1))$ and $(7,4)$ is

   (i) $\dfrac{5}{11}$  (ii) $\dfrac{5}{9}$  (iii) $\dfrac{7}{11}$  (iv) $\dfrac{3}{11}$  (v) $\dfrac{5}{13}$

4. The slope of the line perpendicular to the line passing through the points $(1,2)$ and $(3,4)$ is

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

5. Two straight lines are parallel if and only if their slopes are

   (i) 1  (ii) unequal  (iii) undefined  (iv) equal  (v) 0

6. Two straight lines are perpendicular if and only if the product of their slopes is

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

7. The slope of a line parallel to the line $(-7x+y-44)=0$ is

   (i) 8  (ii) 7  (iii) 4  (iv) 10  (v) 6

8. The slope of a line perpendicular to the line $(-4x-3y-44)=0$ is

   (i) $\dfrac{3}{4}$  (ii) $\dfrac{1}{4}$  (iii) $\dfrac{5}{4}$  (iv) $\dfrac{3}{2}$  (v) $\dfrac{1}{2}$

9. The equation of x-axis is

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

10. The equation of y-axis is

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

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

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

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

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

13. The ratio of coefficients of x and y in the equations of any two parallel lines is

    (i) not proportional  (ii) 1  (iii) 2  (iv) same  (v) not same

14. Two non-vertical lines are parallel if and only if their slopes are

    (i) same (ii) not same (iii) 2 (iv) not proportional (v) 1

15. Any line parallel to x-axis is

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

16. Any line parallel to y-axis is

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

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

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

18. Which of the following are true?

    a) Slope of any line parallel to x-axis is zero
    b) Slope of any line parallel to y-axis is not defined
    c) Slope of any line parallel to x-axis is not defined
    d) Slope of any line parallel to y-axis is zero

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

19. 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 differ in the constant and coefficients of x and y will not be same
    d) Equations of two parallel lines have the same constant and coefficients of x and y will be same

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

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

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

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

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

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

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

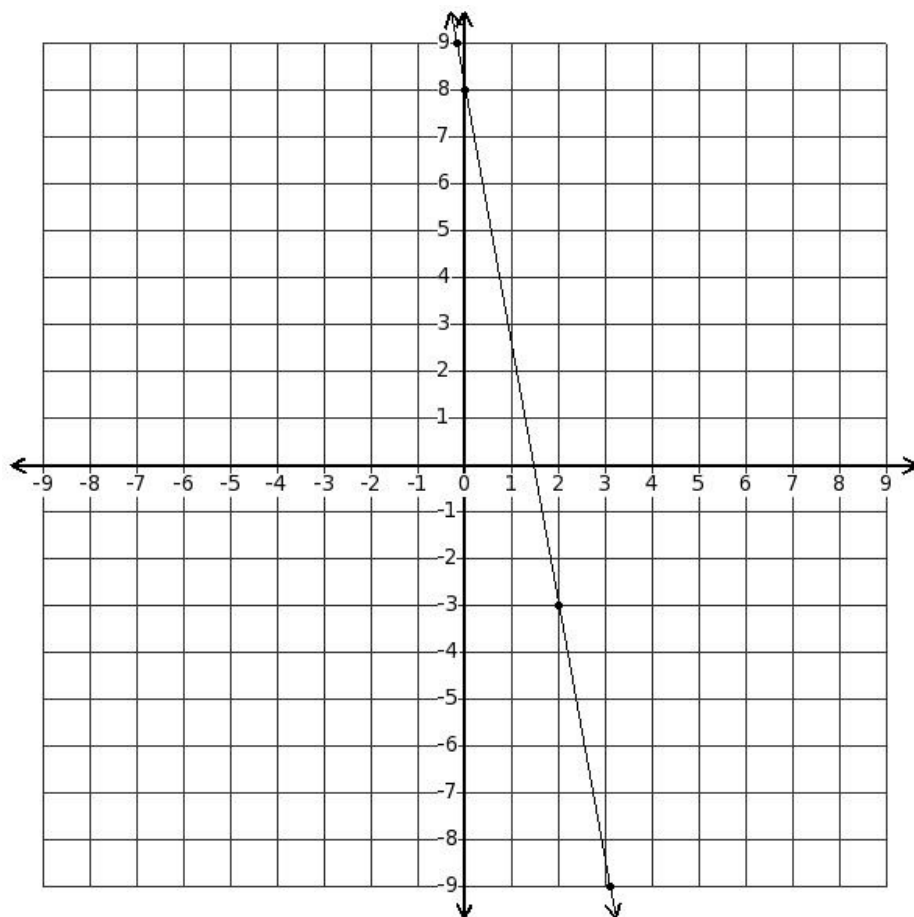    (i) $x = y$ (ii) $y = k$ (iii) $x = 0$ (iv) $y = 0$ (v) $x = k$

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

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

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

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

25.  Find the slope of the displayed line



(i)  $(\dfrac{-9}{2})$  (ii)  $(\dfrac{-11}{2})$  (iii)  $(\dfrac{-21}{4})$  (iv)  $(\dfrac{-13}{2})$  (v)  -6

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

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

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

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

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

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

28. 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)
$$(y - y_1) = \frac{y_2 + y_1}{x_2 + x_1}(x - x_1)$$

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

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

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

29. The equation of the x-axis is

a) $x = 0$

b) $y = 0$

c) $x = y$

d) $x = 1$

e) $y = 1$

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

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

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

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

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

## Assignment Key

| | | | | | |
|---|---|---|---|---|---|
| 1) (i) | 2) (v) | 3) (i) | 4) (iii) | 5) (iv) | 6) (v) |
| 7) (ii) | 8) (i) | 9) (iii) | 10) (ii) | 11) (v) | 12) (i) |
| 13) (iv) | 14) (i) | 15) (i) | 16) (i) | 17) (iii) | 18) (iv) |
| 19) (iii) | 20) (ii) | 21) (iii) | 22) (v) | 23) (i) | 24) (ii) |
| 25) (ii) | 26) (iii) | 27) (i) | 28) (ii) | 29) (iv) | 30) (ii) |
| 31) (i) | | | | | |