

Assignment class - 10th (All sections)

Chapter - Pair of Linear Equations in two variables:

(SARANYA MISHRA)

Solve each question & write solution properly.

Que 1) Solve the following pair of Equations for x and y

$$\frac{a^2}{x} - \frac{b^2}{y} = 0 \quad \frac{a^2}{x} + \frac{b^2}{y} = a+b, \quad x \neq 0 \text{ and } y \neq 0$$

Ans $\rightarrow \boxed{x=a^2} \quad \boxed{y=b^2}$

Que 2) $\frac{2}{x} + \frac{2}{3y} = \frac{1}{6}, \quad \frac{3}{x} + \frac{2}{y} = 0$ hence, find

a for which $y = ax - 4$.

Ans $\boxed{a=0}$

Que 3) Two Nos are in the ratio 5:6. If 7 is subtracted from each of the numbers the ratio becomes 4:5. Find the numbers.

Ans - 35, 42

Que 4) Two water taps together can fill a tank in $1\frac{7}{8}$ hours. The Tap with longer diameter

takes 2 hours less than the tap with smaller or. to fill the tank separately. Find the time in which each tap can fill the tank separately

$\boxed{x=3} \quad \boxed{y=5}$

Que 5) Which one of the following cannot be a difference between a two-digit number and number obtained by interchanging the digits

(a) 72

(b) 36

(c) 54

(d) 4

Ans

Ques 6) If two digit no is K times the sum of its digit... The no formed by interchanging the digit is the sum of digits multiplied by:

- (a) $9-K$ (b) $11-K$ (c) $K-1$ (d) $K+1$

Ans - (b)

Ques 7) $y = a + \frac{b}{x}$, where a and b are real nos

If $y=1$, when $x=-1$ & $y=5$, when $x=-5$ then, $a+b$ equals:

- (a) -1 (b) 0 (c) 11 (d) 10

Ans (c)

Ques 8) If a pair of linear equations is consistent, then the lines will be.

- (a) parallel (b) always coincident
(c) intersecting or coincident (d) always intersecting

Ans (c)

Ques 9) If $x=a$, $y=b$ is the solution of the equations $x+y=2$ and $x-y=4$. Then the values of a and b are respectively.

- (a) 3 & 5 (b) 5 & 3 (c) 3 and 1 (d) -1

Ans (c)

Ques 10) If the system of linear equations

$2x+3y=7$ & $Kx+9y=15$ has a unique solution then the value of K is

- (a) $K=6$ (b) $K \neq 6$ (c) $K=-6$ (d) $K \neq -$

Ans (b)

Que 11) write the coordinates of the point such that the line $3x + 4y = 12$ meets x -axis

Ans $\rightarrow (4, 0)$

Que 12) If the system of Equations $2x + 3y = 7$ and $2ax + (a+b)y = 28$ represent coincident lines, then find the relation between a & b .

Ans $\boxed{a+b=12}$

Que 13) for which value of K will the following pair of linear equations have no solutions

$3x + y = 1, (2K-1)x + (K-1)y = 2K+1$

Ans $\rightarrow \underline{K=2} \text{ and } \underline{K \neq -}$

Que 14) If one solution of the equation $3x^2 = 8x +$

is seven times the other. Find the solutions and the value of K .

$\boxed{K = -\frac{5}{3}}$

Que 15) Two straight paths are represented by the Equations $x - 3y = 2$ and $-2x + 6y = 5$ check whether the paths cross each other or not.

Que 16) ABCD is a parallelogram. Find the values of x & y .

