**ASSIGNMENT (2020-21)**

**CLASS - X SUBJECT – MATHEMATICS**

 **CH- 3 (PAIR OF LINEAR EQUATIONS IN TWO VARIABLES)**

1. The value of $k, $for which the pair of linear equations $4x+6y-1=0$ and $2x-ky=7$

Represents parallel line is

$\left(a\right)$ 2 $\left( b\right)$ -3 $\left(c\right)$ 4 $\left(d\right)$ -2

1. If $x=a, y=b$ is the solution to the equation $x-y=2$ and $x+y=4$, then the values of $a$ and $b$ are respectively

$\left(a\right)$ 3 and 5 $\left(b\right)$ 5 and 3 $\left(c\right)$ 3 and 1 $\left(d\right)$ -1 and -3

1. The area of the triangle formed by the line $\frac{x}{a}+\frac{y}{b}=1$ with the coordinate axes is

$\left(a\right)$ $ab$ $\left( b\right)$ $2ab$ $\left(c\right)$ $\frac{1}{2}ab$ $\left(d\right)$ $\frac{1}{4}ab$

1. If the pair of linear equations $5x+ky=-7, x+2y=3$ is inconsistent, the value of $k$ is :

$\left(a\right)$ $k=\frac{2}{5}$ $\left(b\right)$ $k\ne \frac{2}{5}$ $\left(c\right)$ $k=10$ $\left(d\right)$ $k\ne 10$

1. The pair of linear equations $x=y$ and $x+y=0$ has

$\left(a\right)$ no common solution $\left( b\right)$ infinitely any solutions $\left(c\right)$ unique solution $\left(d\right)$ none of these

1. The angles of a triangle are $x, y and 40°$. The difference between the two angles $x$ and $y$ is 30$°$. Find $x$ and $y.$
2. Two numbers are in the ratio 5 : 6. If 8 is subtracted from each of the numbers, the ratio becomes 4 : 5. Find the numbers.
3. Graphically, solve the following pair of equations: $2x+y=6, 2x-y+2=0$
4. 4 men and 6 boys can finish a piece of work in 5 days while 3 men and 4 boys can finish it in 7 days. Find the time taken by 1 man alone and that by 1 boy alone.
5. The ratio of incomes of two persons is 9 : 7 and ratio of their expenditure is 4 : 3. If each of them saves Rs. 2000 per month, find their monthly incomes.
6. A person, rowing at the rate of 5 km/h in still water, takes thrice as much time in going 40 km upstream as in going 40 km downstream. Find the speed of the stream.
7. ABCD is a cyclic quadrilateral. Find the angles of the cyclic quadrilateral

$$∠A=4y+20, ∠B=3y-5, ∠C=-4x, ∠D=-7x+5$$

1. A shopkeeper sells a saree at 8% profit and a sweater at 10% discount, therby, getting a sum Rs. 1008. If she had sold the saree at 10% profit and the sweater at 8% discount, she would have got Rs.1028. find the cost price of the saree and the list price of the sweater.
2. Find the value of $k,$ for which the pair of linear equations $kx+3y=k-2$ and $12x+ky=k $has no solution.
3. Sum of two numbers is 35 and their difference is 13. Find the numbers.