DELHI PUBLIC SCHOOL JAMMU

SESSION-2025-26

ASSIGNMENT

Month: May

CLASS-X SUBJECT-MATHEMATICS

TOPIC: Pair of Linear Equations in Two Variables

Q1: Find the relation between p and y if x = 3 and y = 1 is the solution of the pair of equations $x - 4y + p = 0$ and $2x + y - q - 2 = 0$.

Q2: Determine whether the following system of linear equations is inconsistent or not.
$3x - 5y = 20$
$6x - 10y = -40$

Q3: Solve the following pair of linear equations using elimination method

$x - y + 1 = 0$; $4x + 3y - 10 = 0$.

Q4: Find out whether the following pair of equation is consistent or inconsistant.
$3x + 2y = 5$; $2x - 3y = 7$

Q5: Solve $2x + 3y = 11$ and $x-2 y = -12$ algebraically and hence find the value of m for which $y = mx + 3$.

Q6: Represent the system of linear equations $3x + y = 5$ and $2x + y = 5$ graphically. From the graph, find the points where the lines intersect y-axis.

Q7: A fraction becomes $\frac{1}{3}$ when 1 is subtracted from the numerator and it becomes 14 when 8 is added to its denominator. Find the fraction.

Q8: 4 chairs and 3 tables cost ₹ 2100 and 5 chairs and 2 tables cost ₹ 1750. Find the cost of one chair and one table separately.

Q9: When the son will be as old as what his father is today their ages will add upto 126 years. When the father was as old as what his son is today, their ages added upto 38 years. Find their present ages.

Q10: A number consists of two digits. When it is divided by the sum of the digits, the quotient is 6 with no remainder. When the number is diminished by 9, the digit are reversed.