

10 Class Math Tuition Assignment

Assignment – 3

Assigned To = All 10 Class Student

Note: All Questions are compulsory to attempt

Chapter = LINEAR EQUATIONS IN TWO VARIABLE

Submission Date = See on portal

MM = 30

Q1. Use elimination method to find all possible solutions of the following pair of linear equation:

$$2x + 3y = 8$$

$$4x + 6y = 7$$

Q2. Determine graphically the coordinates of vertices of a triangle, the equation of whose sides are given by $2y - x = 8$, $5y - x = 14$ and $y - 2x = 1$.

Q3. Find the value(s) of k so that the pair of equations $x + 2y = 5$ and $3x + ky + 15 = 0$ has a unique solution.

Q4. Ritu can row downstream 20 km in 2 hours, and upstream 4 km in 2 hours. Find her speed of rowing in still water and the speed of the current.

Q5. Solve the following pair of linear equations by the substitution and cross-multiplication methods:

$$8x + 5y = 9$$

$$3x + 2y = 4$$

Q6. A lending library has a fixed charge for the first three days and an additional charge for each day thereafter. Saritha paid Rs.27 for a book kept for seven days, while Susy paid Rs.21 for the book she kept for five days. Find the fixed charge and the charge for each extra day.

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Q7. Five years ago, Nuri was thrice as old as Sonu. Ten years later, Nuri will be twice as old as Sonu. How old are Nuri and Sonu?

Q8. Solve $2x + 3y = 11$ and $2x - 4y = -24$ and hence find the value of 'm' for which $y = mx + 3$.

Q9. Solve the following pair of linear equations by the substitution method.

(i) $x + y = 14$
 $x - y = 4$

(ii) $3x - y = 3$
 $9x - 3y = 9$

Q10. Half the perimeter of a rectangular garden, whose length is 4 m more than its width, is 36 m. Find the dimensions of the garden.