

Board-ICSE	Class - 9 th	Topic - Methods of Solving Simultaneous Equations
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Section A: Multiple Choice Questions (1 mark each)

- What is the solution of the equations $x + y = 5$, $x - y = 1$?
A) $x = 2, y = 3$ B) $x = 3, y = 2$ C) $x = 4, y = 1$ D) $x = 1, y = 4$
- The value of y in the system $2x + 3y = 12$, $4x + 6y = 24$ is
A) Infinite solutions B) No solution C) $y = 2$ D) $y = 0$
- Which method is most suitable to solve the equations $\frac{x}{2} + \frac{y}{3} = 2$, $\frac{x}{3} + \frac{y}{2} = 3$?
A) Substitution B) Elimination C) Cross-multiplication D) Graphical
- The equations $x = 2y + 3$ and $y = x - 4$ are best solved by:
A) Elimination B) Substitution C) Cross-multiplication D) Trial and Error
- If two lines represented by equations are parallel, then the number of solutions is:
A) 1 B) 2 C) 0 D) Infinite

Section B: Subjective Questions (2 marks each)

- Solve using elimination method: $3x + 2y = 12$, $2x - 2y = 4$
- Solve using substitution method: $x + y = 10$, $x - y = 4$
- Solve using cross-multiplication method: $2x + 3y = 13$, $4x - 5y = -2$

Section C: Word Problems (3 marks each)

- The sum of two numbers is 20. Five times the first number is equal to six times the second. Find the numbers.
- A boat takes 2 hours to travel 20 km downstream and 4 hours to return upstream. Find the speed of the boat in still water and the speed of the stream.

Section D: Long Questions (4 marks each)

- Solve by cross-multiplication: $3x - 4y = 10$, $5x + 6y = 8$
- The cost of 5 pens and 3 pencils is 70. The cost of 2 pens and 4 pencils is 50. Find the cost of one pen and one pencil using the elimination method.