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(Affiliated to CBSE up to +2 Level)

CLASS: X

SUB.: MATHS (NCERT BASED)

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REVISION

Q.Solve the following pair of linear equations by the elimination method and the substitution method:

(i) $x + y = 5$ and $2x - 3y = 4$

Ans. (i) $x + y = 5$ and $2x - 3y = 4$

By elimination method

$$x + y = 5 \dots (i)$$

$$2x - 3y = 4 \dots (ii)$$

Multiplying equation (i) x 2 and

(ii) x 1 we get

$$2x + 2y = 10 \dots (iii)$$

$$2x - 3y = 4 \dots (ii)$$

Subtracting equation (ii) from

equation (iii), we get

$$5y = 6$$

$$y = 6/5$$

Putting the value in

equation (i), we get

$$x = 5 - (6/5) = 19/5$$

Hence, $x = 19/5$ and $y = 6/5$

(i) $x + y = 5$ and $2x - 3y = 4$

By substitution method

$$x + y = 5 \dots (i)$$

Subtracting y from both side, we get

$$x = 5 - y \dots (iv)$$

Putting the value of x in

equation (ii) we get

$$2(5 - y) - 3y = 4$$

$$-5y = -6$$

$$y = -6/-5 = 6/5$$

Putting the value of y in

equation (iv) we get

$$x = 5 - 6/5$$

$$x = 19/5$$

Hence, $x = 19/5$ and $y = 6/5$

Q. Solve the following pair of linear equations by the elimination method and the substitution method:

(ii) $3x + 4y = 10$ and $2x - 2y = 2$

(iii) $3x - 5y - 4 = 0$ and $9x = 2y + 7$

(iv) $x/2 + 2y/3 = -1$ and $x - y/3 = 3$