Linear Equations in Two Variables Ex 13.2 Q3

Answer :

We are given,

$2x - y = 6$

(i) In the equation $2x - y = 6$, we have

$L.H.S = 2x - y$ and $R.H.S = 6$

Substituting $x = 3$ and $y = 0$ in $2x - y$, we get

$L.H.S = 2 \times 3 - 0 = 6$

$L.H.S = R.H.S$

$\boxed{(3, 0)}$ is the solution of $2x - y = 6$.

(ii) In the equation $2x - y = 6$, we have

$L.H.S = 2x - y$ and $R.H.S = 6$

Substituting $x = 0$ and $y = 6$ in $2x - y$, we get

$L.H.S = 2 \times 0 - 6 = -6$

$L.H.S \neq R.H.S$

$\boxed{(0, 6)}$ is not the solution of $2x - y = 6$.

(iii) In the equation $2x - y = 6$, we have

$L.H.S = 2x - y$ and $R.H.S = 6$

Substituting $x = 2$ and $y = -2$ in $2x - y$, we get

$L.H.S = 2 \times 2 - (-2) = 6$

$L.H.S = R.H.S$

$\boxed{(2,-2)}$ is the solution of 2x – y = 6.

(iv) In the equation 2x – y = 6, we have

L.H.S $= 2x - y$ and R.H.S=6

Substituting $x = \sqrt{3}$ and y = 0 in 2x – y, we get

L.H.S $= 2 \times \sqrt{3} - 0 = 2\sqrt{3}$

L.H.S $\neq$ R.H.S

$\boxed{\left(\sqrt{3}, 0\right)}$ is not the solution of 2x – y = 6.

(v) In the equation 2x – y = 6, we have

L.H.S $= 2x - y$ and R.H.S=6

Substituting $x = \dfrac{1}{2}$ and y = –5 in 2x – y, we get

L.H.S $= 2 \times \dfrac{1}{2} - (-5) = 6$

L.H.S = R.H.S

$\boxed{\left(\dfrac{1}{2}, -5\right)}$ is the solution of 2x – y = 6.

Linear Equations in Two Variables Ex 13.2 Q4

Answer :

We are given,

$3x + 4y = k$

$(-1, 2)$ is the solution of equation $3x + 4y = k$.

Substituting $x = -1$ and $y = 2$ in $3x + 4y = k$, we get

$3 \times -1 + 4 \times 2 = k$

$k = -3 + 8$

$\boxed{k = 5}$

********** END *********