

Pair of Linear Equations in Two varibles Ex 3.5 Q5 **Answer:**

GIVEN:

kx + 2y = 5

3x + y = 1

To find: To determine to value of k for which the system has a unique solution.

We know that the system of equations

 $a_1 x + b_1 y = c_1$

 $a_2x + b_2y = c_2$

For unique solution

 $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$

Here,

 $\frac{k}{3} \neq \frac{2}{1}$

 $k \neq 6$

Hence for $k \neq 6$ the system of equation has unique solution.

Pair of Linear Equations in Two varibles Ex 3.5 Q6 **Answer:**

GIVEN:

4x + ky + 8 = 0

2x + 2y + 2 = 0

To find: To determine to value of k for which the system has a unique solution.

We know that the system of equations

 $a_1 x + b_1 y = c_1$

 $a_2x + b_2y = c_2$

For unique solution

 $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$

Here.

 $\frac{4}{2} \neq \frac{k}{2}$

 $k \neq \frac{4 \times 2}{2}$

 $k \neq 4$

Hence for $\boxed{k \neq 4}$ the system of equation has unique solution

Pair of Linear Equations in Two varibles Ex $3.5~\mathrm{Q}7$



GIVEN:

$$4x-5y=\kappa$$

$$2x-3y=12$$

To find: To determine to value of k for which the system has a unique solution.

We know that the system of equations

$$a_1 x + b_1 y = c_1$$

$$a_2x + b_2y = c_2$$

For unique solution

$$\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$$

Here,

$$\frac{4}{2}\neq\frac{-5}{-3}$$

Hence already $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$ for the system of equation to have unique solution but the value of k should be a real

number

Hence for k = real number the system of equation has unique solution.

Pair of Linear Equations in Two varibles Ex 3.5 Q8

Answer:

GIVEN:

$$x+2y=3$$

$$5x + ky + 7 = 0$$

To find: To determine to value of k for which the system has a unique solution.

We know that the system of equations

$$a_1 x + b_1 y = c_1$$

$$a_2x + b_2y = c_2$$

For unique solution

$$\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$$

Here,

$$\frac{1}{5} \neq \frac{2}{k}$$

$$k \neq 5 \times 2$$

$$k \neq 10$$

Hence for $k \neq 10$ the system of equation has unique solution

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