**RS Aggarwal Solutions for Class 10 Maths Chapter 3 Exercise 3.1:** A step-by-step solution for Chapter 3 of RS Aggarwal's textbook for Class 10 Physics has been developed by the academic staff at Wallah. To become an expert in maths, read the NCERT textbook and use the NCERT class 10 maths solutions to answer the exercise's problems. Every NCERT Solution is created by Physics Wallah professionals.

The chapter 3 Linear Equations in Two Variables Exercise-3A solution by RS Aggarwal class 10 is uploaded for reference only; do not copy the solutions. Before proceeding with the chapter 3 Linear Equations in Two Variables Exercise 3A solution, one must have a clear understanding of the chapter 3 Linear Equations in Two Variables. To do this, read the theory of the chapter-3 Linear Equations in Two Variables and then attempt to solve all numerical of exercise 3A.

# RS Aggarwal Solutions for Class 10 Maths Chapter 3 Exercise 3.1 Overview

RS Aggarwal's Class 10 Maths Chapter 3, Exercise 3.1 deals with linear equations in two variables. This exercise introduces students to the fundamental concepts of equations involving two variables, typically represented as ax+by+c=0ax + by + c = 0ax+by+c=0. The exercise focuses on understanding how to graphically represent these equations on the coordinate plane, allowing students to visualize the solutions as points where the lines intersect.

By solving problems in this exercise, students learn to find solutions to equations involving two variables, interpret the meaning of these solutions in real-world contexts, and understand the graphical representation of linear equations. Overall, Exercise 3.1 serves as a foundational step towards mastering more complex concepts in algebra and real-world applications of linear equations.

# RS Aggarwal Solutions for Class 10 Maths Chapter 3 Exercise 3.1

Below we have provided RS Aggarwal Solutions for Class 10 Maths Chapter 3 Exercise 3.1 for the ease of the students –

**Question 1.**

**Solution:**

For equation, $2x + 3y = 2$

First, take $x = 0$ and find the value of y.

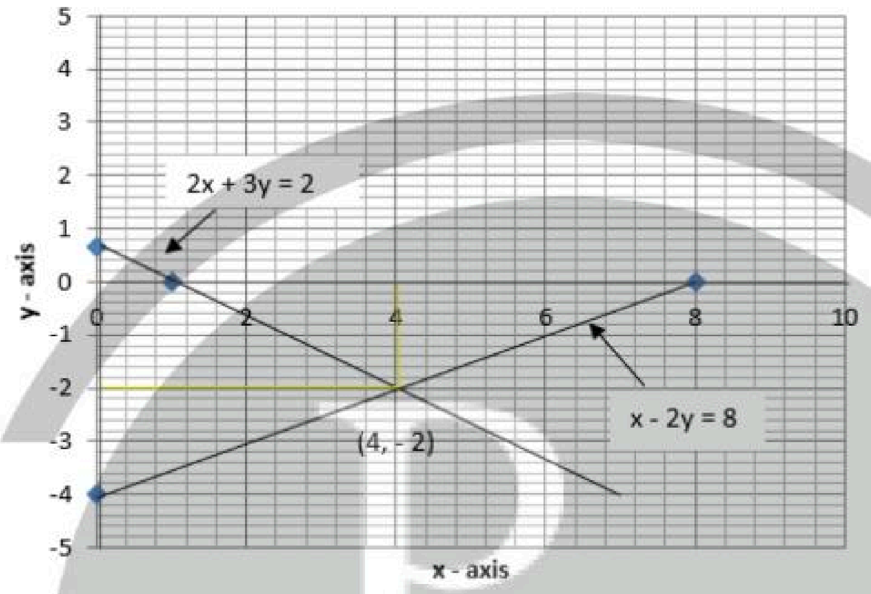
Then, take $y = 0$ and find the value of x.

| | | |
|---|---|---|
| x | 0 | 1 |
| y | 2/3 | 0 |

Now similarly solve for equation, $x - 2y = 8$

| | | |
|---|---|---|
| x | 0 | 8 |
| y | - 4 | 0 |

Plot the values in a graph and find the intersecting point for the solution.




Hence, the solution so obtained from the graph is (4, - 2), which is the intersecting point of the two lines.

**Question 2 .**

**Solution:**

For equation, 3x + 2y = 4

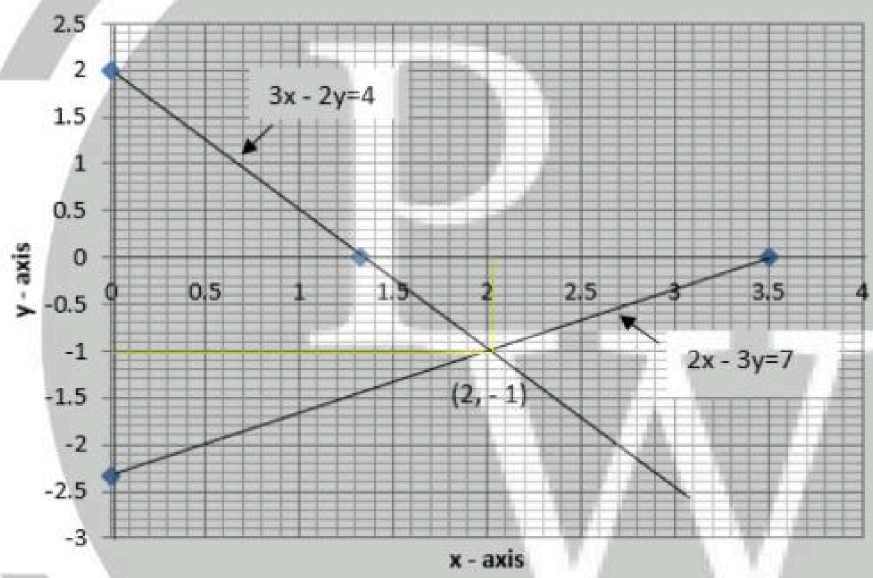
First, take x = 0 and find the value of y.

| | | |
|---|---|---|
| x | 0 | 4/3 |
| y | 2 | 0 |

Now similarly solve for equation, 2x - 3y = 7

| | | |
|---|---|---|
| x | 0 | 7/2 |
| y | - 7/3 | 0 |

Plot the values in a graph and find the intersecting point for the solution.




Hence, the solution so obtained from the graph is (2, - 1), which is the intersecting point of the two lines.

## Question 3 .

### Solution:

We can rewrite the equations as:

2x + 3y = 8

x - 2y = - 3

For equation, 2x + 3y = 8

First, take x = 0 and find the value of y.

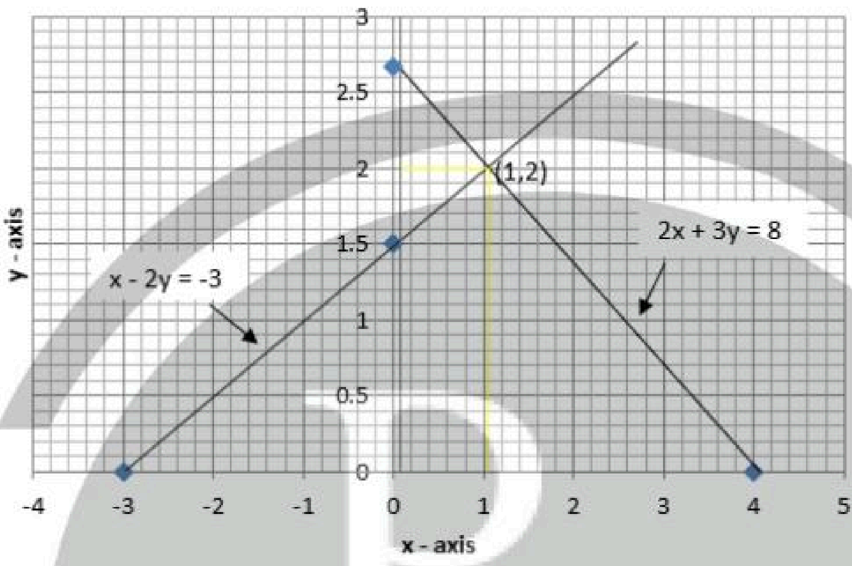
Then, take y = 0 and find the value of x.

| | | |
|---|---|---|
| x | 0 | 4 |
| y | 8/3 | 0 |

Now similarly solve for equation, x - 2y = - 3

| | | |
|---|---|---|
| x | 0 | - 3 |
| y | 3/2 | 0 |

Plot the values in a graph and find the intersecting point for the solution.




Hence, the solution so obtained from the graph is (1,2), which is the intersecting point of the two lines.

## Question 4.

### Solution:

We can rewrite the equations as:

2x – 5y = - 4

& 2x + y = 8

For equation, 2x – 5y = - 4

First, take x = 0 and find the value of y.

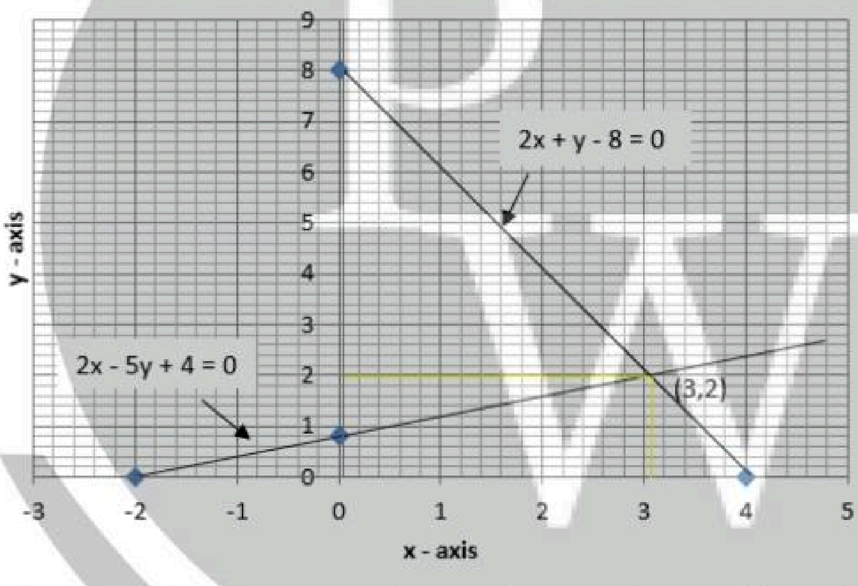
Then, take y = 0 and find the value of x.

| | | |
|---|---|---|
| x | 0 | - 2 |
| y | 4/5 | 0 |

Now similarly solve for equation, 2x + y = 8

| | | |
|---|---|---|
| x | 0 | 4 |
| y | 8 | 0 |

Plot the values in a graph and find the intersecting point for the solution.




Hence, the solution so obtained from the graph is (3,2), which is the intersecting point of the two lines.

## Question 5

### Solution:

For equation, $3x + 2y = 12$

First, take $x = 0$ and find the value of y.

Then, take $y = 0$ and find the value of x.

| | | |
|---|---|---|
| x | 0 | 4 |
| y | 6 | 0 |

Now similarly solve for equation, $5x - 2y = 4$

| | | |
|---|---|---|
| x | 0 | 4/5 |
| y | - 2 | 0 |

Plot the values in a graph and find the intersecting point for the solution.

## Question 6.

### Solution:

We can rewrite the equations as:

$3x + y = -1$

& $2x - 3y = -8$

For equation, $3x + y = -1$

First, take $x = 0$ and find the value of y.

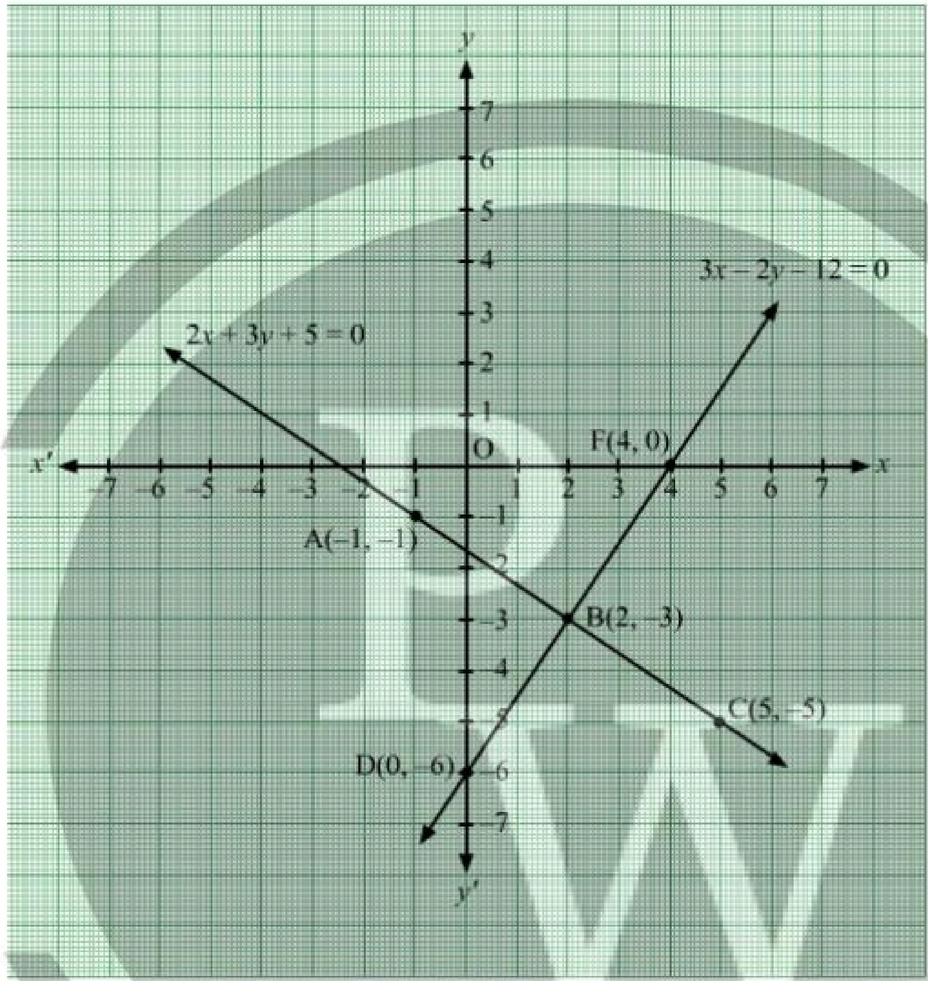
Then, take $y = 0$ and find the value of x.

| | | |
|---|---|---|
| x | 0 | - 1/3 |
| y | - 1 | 0 |

Now similarly solve for equation, $2x - 3y = -8$

| | | |
|---|---|---|
| x | 0 | - 4 |
| y | 8/3 | 0 |

Plot the values in a graph and find the intersecting point for the solution.




Hence, the solution so obtained from the graph is ( - 1,2), which is the intersecting point of the two lines.

## Question 7.

### Solution:

We can rewrite the equations as:

2x + 3y = - 5

& 3x + 2y = 12

For equation, 2x + 3y = - 5

First, take x = 0 and find the value of y.

Then, take y = 0 and find the value of x.

| | | |
|---|---|---|
| x | 0 | - 5/2 |
| y | - 5/3 | 0 |

Now similarly solve for equation, 3x + 2y = 12

| | | |
|---|---|---|
| x | 0 | 4 |
| y | - 6 | 0 |

Plot the values in a graph and find the intersecting point for the solution.

## Question 8 .

### Solution:

We can rewrite the equations as:

$2x - 3y = -13$

& $3x - 2y = -12$

For equation, $2x - 3y = -13$

First, take $x = 0$ and find the value of y.

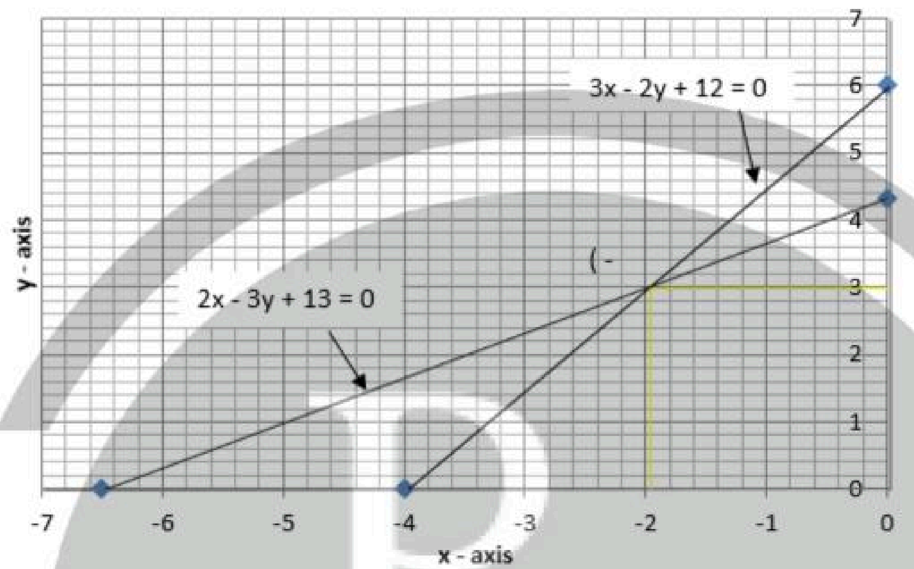
Then, take $y = 0$ and find the value of x.

| | | |
|---|---|---|
| x | 0 | -13/2 |
| y | 13/3 | 0 |

Now similarly solve for equation, $3x - 2y = -12$

| | | |
|---|---|---|
| x | 0 | - 4 |
| y | 6 | 0 |

Plot the values in a graph and find the intersecting point for the solution.




Hence, the solution so obtained from the graph is ( - 2,3), which is the intersecting point of the two lines.

**Question 9.**

**Solution:**

We can rewrite the equations as:

2x + 3y = 4

& 3x − y = - 5

For equation, 2x + 3y = 4

First, take x = 0 and find the value of y.

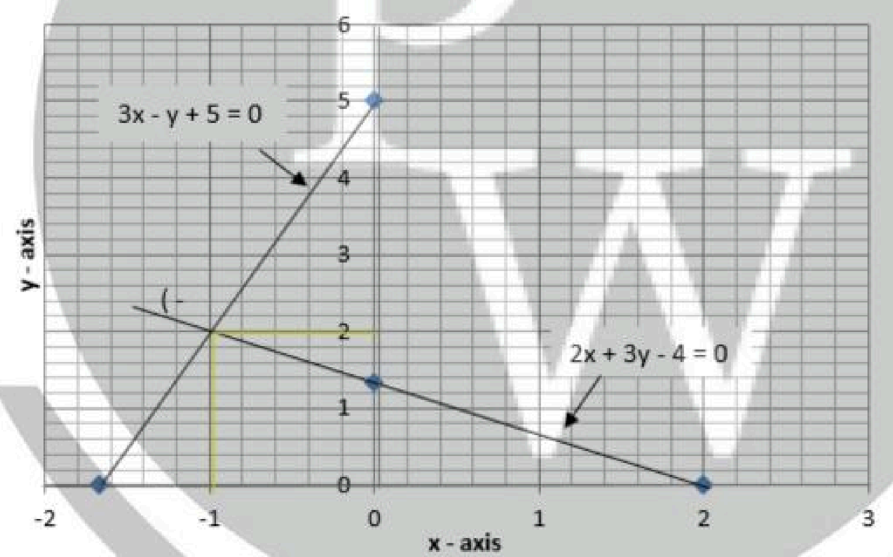
Then, take y = 0 and find the value of x.

| | | |
|---|---|---|
| x | 0 | 2 |
| y | 4/3 | 0 |

Now similarly solve for equation, 3x − y = - 5

| | | |
|---|---|---|
| x | 0 | - 5/3 |
| y | 5 | 0 |

Plot the values in a graph and find the intersecting point for the solution.




Hence, the solution so obtained from the graph is ( - 1,2), which is the intersecting point of the two lines.

## Question 10.

**Solution:**

We can rewrite the equations as:

x + 2y = - 2

& 3x + 2y = 2

For equation, x + 2y = - 2

First, take x = 0 and find the value of y.

Then, take y = 0 and find the value of x.

| | | |
|---|---|---|
| x | 0 | - 2 |
| y | - 1 | 0 |

Now similarly solve for equation, 3x + 2y = 2

| | | |
|---|---|---|
| x | 0 | 2/3 |
| y | 1 | 0 |

Plot the values in a graph and find the intersecting point for the solution.

## Question 11.

**Solution:**

We can rewrite the equations as:

x − y = - 3

& 2x + 3y = 4

For equation, x − y = - 3

First, take x = 0 and find the value of y.

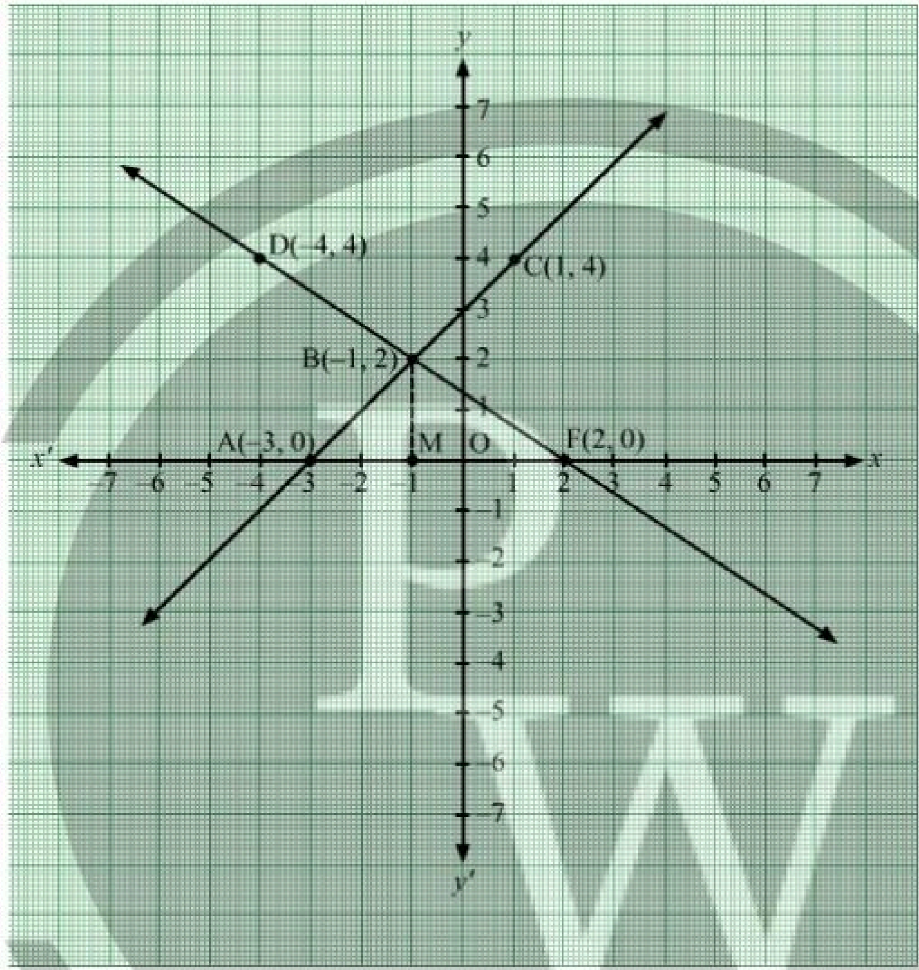
Then, take y = 0 and find the value of x.

| | | |
|---|---|---|
| x | 0 | - 3 |
| y | 3 | 0 |

Now similarly solve for equation, 2x + 3y = 4

| | | |
|---|---|---|
| x | 0 | 2 |
| y | 4/3 | 0 |

Plot the values in a graph and find the intersecting point for the solution.




Hence, the solution so obtained from the graph is ( - 1,2), which is the intersecting point of the two lines.

The vertices of the formed triangle ABC by these lines and the x - axis in the graph are A( - 1,2), B( - 3,0) and C(2,0).

**Question 12.**

**Solution:**

We can rewrite the equations as:

$2x - 3y = -4$

& $x + 2y = 5$

For equation, $2x - 3y = -4$

First, take $x = 0$ and find the value of y.

Then, take $y = 0$ and find the value of x.

| | | |
|---|---|---|
| x | 0 | - 2 |
| y | 4/3 | 0 |

Now similarly solve for equation, $x + 2y = 5$

**Question 13.**

**Solution:**

We can rewrite the equations as:

$4x - 3y = -4$

& $4x + 3y = 20$

For equation, $4x - 3y = -4$

First, take $x = 0$ and find the value of y.

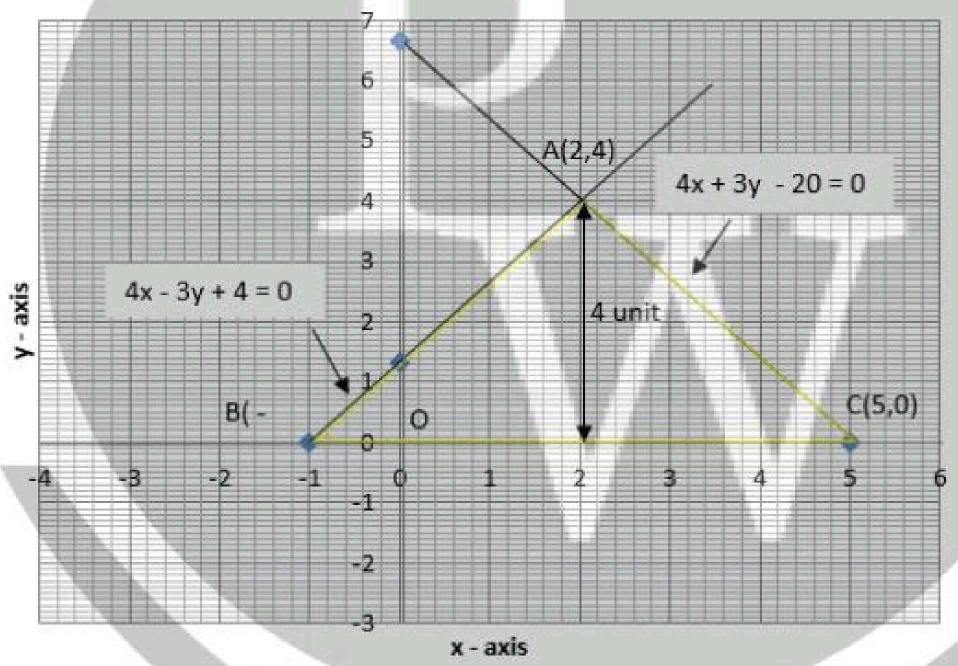
Then, take y = 0 and find the value of x.

| | | |
|---|---|---|
| x | 0 | - 1 |
| y | 4/3 | 0 |

Now similarly solve for equation, 4x + 3y = 20

| | | |
|---|---|---|
| x | 0 | 5 |
| y | 20/3 | 0 |

Plot the values in a graph and find the intersecting point for the solution.




Hence, the solution so obtained from the graph is (2,4), which is the intersecting point of the two lines.

**Question 14.**

**Solution:**

We can rewrite the equations as:

$x - y = -1$

& $3x + 2y = 12$

For equation, $x - y = -1$

First, take $x = 0$ and find the value of y.

Then, take $y = 0$ and find the value of x.

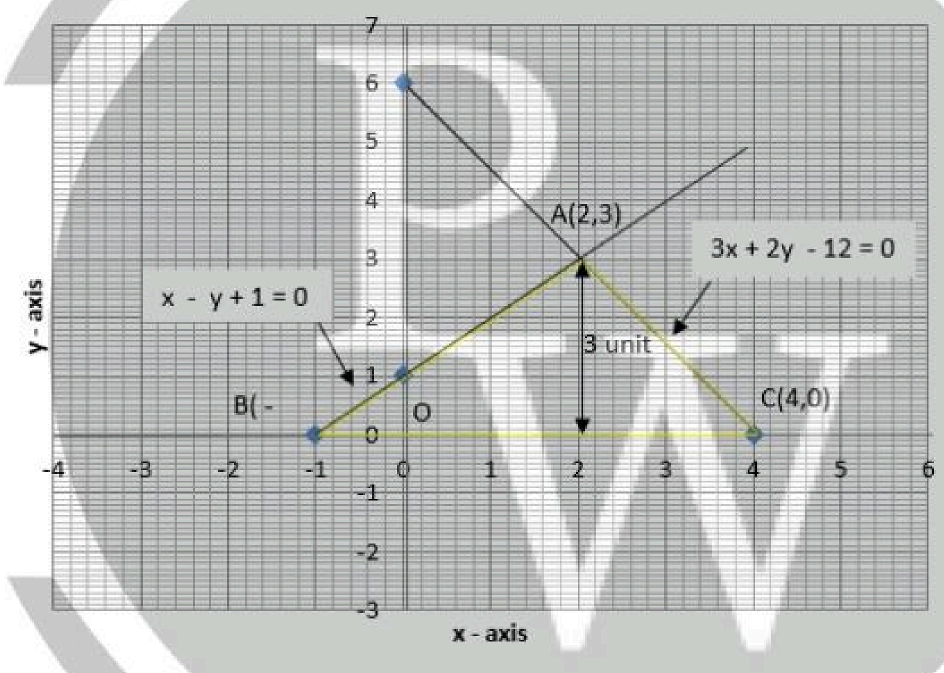
| | | |
|---|---|---|
| x | 0 | -1 |

y  - 1  0

Now similarly solve for equation, 3x + 2y = 12

| | | |
|---|---|---|
| x | 0 | 4 |
| y | 6 | 0 |

Plot the values in a graph and find the intersecting point for the solution.




Hence, the solution so obtained from the graph is (2,3), which is the intersecting point of the two lines.

The vertices of the formed triangle by these lines and the x - axis in the graph are A(2,3), B( - 1,0) and C(4,0).

## Benefits of RS Aggarwal Solutions for Class 10 Maths Chapter 3 Exercise 3.1

RS Aggarwal Solutions for Class 10 Maths Chapter 3 Exercise 3.1 provide several benefits to students studying linear equations in two variables:

**Structured Approach:** The solutions offer a structured approach to understanding and solving problems related to linear equations. Each step is clearly explained, making it easier for students to follow and grasp the concepts.

**Comprehensive Coverage:** The solutions cover all types of problems typically found in the exercise, ensuring students are well-prepared for their examinations and assessments.

**Clarity and Explanation:** The solutions provide clear explanations for each problem, helping students understand the underlying concepts and methods used to solve them.

**Practice and Reinforcement:** By solving problems from RS Aggarwal's exercises, students get ample practice, which is crucial for mastering mathematical concepts like linear equations in two variables.

**Real-World Applications:** The problems often include real-world scenarios, helping students connect mathematical concepts to practical situations, enhancing their understanding and application skills.

**Graphical Representation:** Exercises often include graphical representations of linear equations, helping students visualize solutions and understand the relationship between equations and their graphical interpretations.

**Preparation for Exams:** The solutions are designed to align with typical examination formats, helping students prepare effectively and confidently for their exams.