

Chapter - 13 Algebra -System of Linear equations

Objective :

Using GeoGebra, the students will be able

- to identify and use the required tools to input the equations
- to identify and use the required tools to find the intersecting point
- to understand the solution of the system of linear equations

Skills to be attained: Draw a straight line using GeoGebra tools.

Tools/website/Resources: GeoGebra

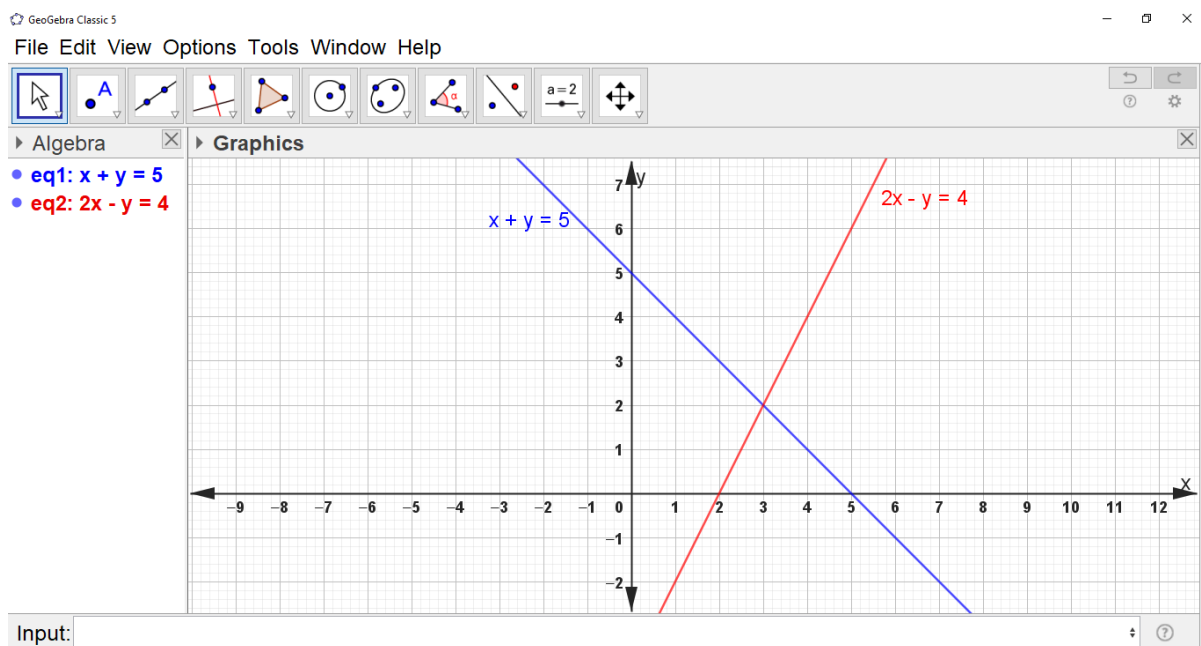
Teacher-led instruction:

Open Graphics View → Input Equations→ Point of intersection→ Solution

Open: Start GeoGebra on your computer or use the web version at [geogebra.org](https://www.geogebra.org).

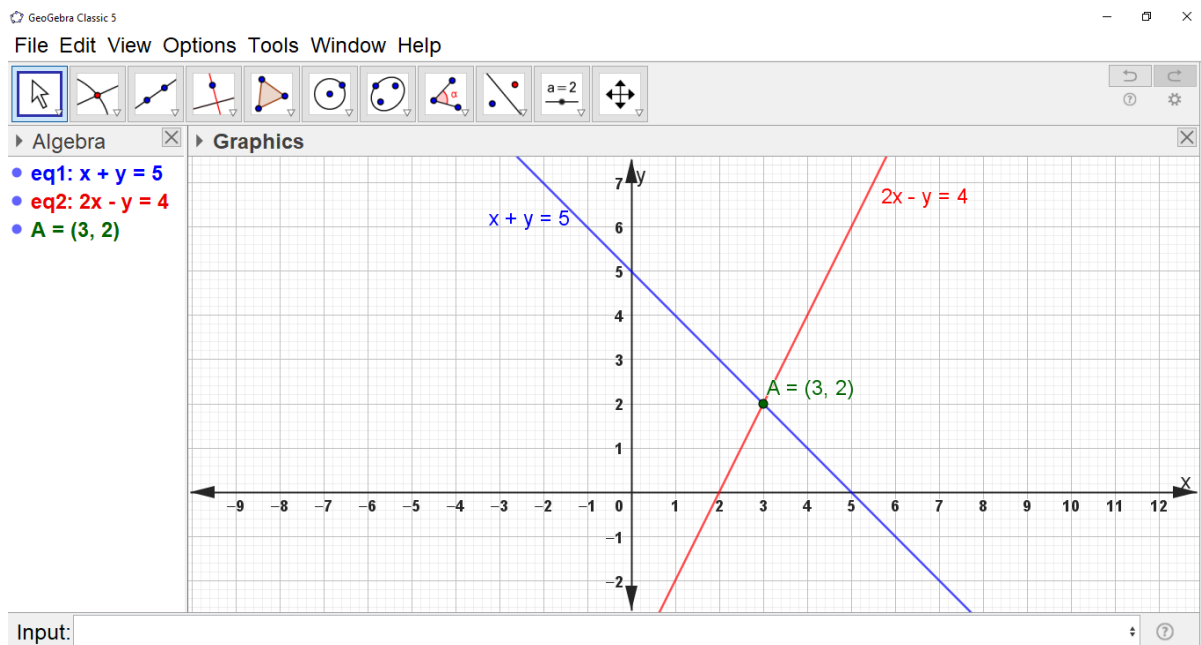
Step 1: Input Equations:

- Type the first equation $x + y = 5$ using the input bar and press Enter.
- A line representing equation $x + y = 5$ will appear on the Graphics View.
- Again, Enter the second equation $2x - y = 4$
- A second line will appear on the Graphics View.



Step 2: Find Intersection:

- Go to Point tools and select Intersect tool.
- Click on each of the two lines successively.
- The intersection point A will appear.
- Right-click on the intersecting point A, then enable Name and Value.
- The intersecting point is A (3, 2) will appear.



Step 3: Solution:

- The solution is point A (3, 2) which is common to both the lines.

Student Activity:

1. Students open GeoGebra and Create this applet
2. Solve the following system of $x + y = 7$; $x - y = 3$ by using equations GeoGebra and verify the answer.

Conclusion:

- Recap all the tools learned in the class.
- Encourage students to create real-life situations involving linear equations.