

-SOLUTION-TO-A-SYSTEM-OF-LINEAR-EQUATIONS

› Aim:

To write a python program to find a solution to a system of linear equations.

› Equipment's required:

1. Hardware – PCs
2. Anaconda – Python 3.7 Installation / Moodle-Code Runner

› Algorithm:

› Step 1:

Import the numpy module to use the built-in functions for calculation

› Step 2:

Prepare the lists from each linear equations and assign in np.array()

› Step 3:

Using the np.linalg.solve(), we can find the solutions.

› Step 4:

End the program

› Program:

```
#Program to find the solution for the given linear equations.
#Developed by: yuva krishna k
#RegisterNumber: 212222110056
import numpy as np
A=np.array([[5, -3, -10], [2, 2, -3], [-3, -1, 5]])
B=np.array([-9, 4, -1])
result=np.linalg.solve(A,B)
print(result)
```

› Output:

```
1 #Program to find the solution for the given linear equations.
2 #Developed by: yuva krishna k
3 #RegisterNumber: 212222110056
4 import numpy as np
5 A=np.array([[5,-3,-10],[2,2,-3],[-3,-1,5]])
6 B=np.array([-9,4,-1])
7 result=np.linalg.solve(A,B)
8 print(result)
```

' Result:

Thus the solutions for the linear equations are successfully solved using python program