

# RANK-OF-A-MATRIX

## Aim:

To write a python program to find the rank of a matrix

## 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 the given matrix and assign in np.array()**

**Step 3: Using the np.linalg.matrix\_rank(), we can find the rank of the given matrix.**

**Step 4: End the program**

## Program:

```
''' #Program to find the rank of a matrix. #Developed by: Thanushree #RegisterNumber:24900590
import numpy as np matrix=np.array([[1,2,3],[3,6,9]]) rank=np.linalg.matrix_rank(matrix) print(rank)
'''
```

## Output:

Question 1  
Correct  
Mark 100.00 out of 100.00  
Flag question

Write a program to find the rank for the given matrix  $\begin{bmatrix} 1 & 2 & 3 \\ 3 & 6 & 9 \end{bmatrix}$

**Answer:** (penalty regime: 0 %)

Reset answer

```
1 #Program to find the rank of a matrix.
2 #Developed by: Thanushree
3 #RegisterNumber:24900590
4 import numpy as np
5 matrix=np.array([[1,2,3],[3,6,9]])
6 rank=np.linalg.matrix_rank(matrix)
7 print(rank)
```

	Expected	Got	
✓	1	1	✓

Passed all tests! ✓

► Show/hide question author's solution (Python3)

**Correct**

Marks for this submission: 100.00/100.00.

## Result:

Thus the rank for the given matrix is successfully solved by using a python program.