Task1

Passing list

Program 1

```
---------- - ---------- - -
========== RESTAR
Array is: [1 2 3 4 5 6 7 8]
Data Type is: int32
```

Program2

```
======================
Array is: [[1 2 3]
 [4 5 6]
 [7 8 9]]
shape: (3, 3)
Data type is: int32
```

Task 2

Operators

```
================
[1 3 5 7 9]
```

Zeros and ones

```
---------- RESTART: D:/python/sp
Matrix of 1D: [[0 0 0]]

Matrix of 10 X 10: [[1 1 1 1 1 1 1 1 1 1]
 [1 1 1 1 1 1 1 1 1 1]
 [1 1 1 1 1 1 1 1 1 1]
 [1 1 1 1 1 1 1 1 1 1]
 [1 1 1 1 1 1 1 1 1 1]
 [1 1 1 1 1 1 1 1 1 1]
 [1 1 1 1 1 1 1 1 1 1]
 [1 1 1 1 1 1 1 1 1 1]
 [1 1 1 1 1 1 1 1 1 1]
 [1 1 1 1 1 1 1 1 1 1]]
```

Linspace

```
====================== RESTART: D:/python/sprint3/task1.py ================
[ 1.          1.41666667  1.83333333  2.25        2.66666667  3.08333333
  3.5         3.91666667  4.33333333  4.75        5.16666667  5.58333333
  6.          6.41666667  6.83333333  7.25        7.66666667  8.08333333
  8.5         8.91666667  9.33333333  9.75       10.16666667 10.58333333
 11.        ]
```

Identity matrix

```
====================== RES
[[1 0 0 0 0 0 0 0 0 0]
 [0 1 0 0 0 0 0 0 0 0]
 [0 0 1 0 0 0 0 0 0 0]
 [0 0 0 1 0 0 0 0 0 0]
 [0 0 0 0 1 0 0 0 0 0]
 [0 0 0 0 0 1 0 0 0 0]
 [0 0 0 0 0 0 1 0 0 0]
 [0 0 0 0 0 0 0 1 0 0]
 [0 0 0 0 0 0 0 0 1 0]
 [0 0 0 0 0 0 0 0 0 1]]
```

Random package

```
====================== RESTART: D:\python\sprint3\
[0.22040569 0.56502248 0.88270353 0.07416606]
```

Randn

Program 1

```
====================== REST
[0.25674963 0.28550344]
```

Program 2

```
====================== RESTART: D:\python\sprint3\task1.py ==================
[[-3.52115616  1.12793289 -0.90319182 -0.08217971  0.86935684  0.84473993]
 [ 0.91413549 -1.49097168 -1.51829526 -0.04276562 -1.33088172  0.10436626]
 [-0.03670336  1.14534647  0.29319819  0.85081565 -1.0029681  -0.23446342]
 [-0.90038043 -0.5388199   0.07670256 -1.06672597  0.03788993 -0.78560908]
 [ 0.74509995  0.90301587  1.29743412 -0.25629629  1.15359653 -0.62795724]
 [ 0.19014697 -0.8460809   0.25221001 -0.66292054  0.50721797 -2.06461395]]
```

Randint

```
====================== RESTAR
[[5 4 1 5 1 0 1 5 0 5]]
```

Array

```
====================== RESTART: D:\python\sprint3\task1.py ==================
[ 0  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
 24]
```

Random

```
====================== RESTART: D:\pyt
[[26 46 19 29 49 47 17 34 47 19]]
```

Shape

```
==========
(2, 3)
```

Reshape

```
[[1 2 3]
 [4 5 6]]
```

Minimum

```
========== RE
Minimum value is: 34
```

Task 3

Argument Function

```
========== RESTA
Index of max value is: 2
```

Slicing

```
========== RESTART: D:/python/sprint3/task1.py ==
[1000 1000 1000 1000 1000    6    7    8    9   10]
```

Indexing

```
============
[[1 2 3]
 [4 5 6]
 [7 8 9]]
```

Arithmetic Operators

```
========== RESTART: D:\python\sprint3\task1.py ===
Addition is: [ 2  4  6  8 10 12 14 16 18 20]
Subtraction is: [0 0 0 0 0 0 0 0 0 0]
Multiplication is: [  1   4   9  16  25  36  49  64  81 100]
Division is: [1. 1. 1. 1. 1. 1. 1. 1. 1. 1.]
```

Two Array

```
---------- RESTART:
Addition is: [ 7  9 11 13 15]
```

Trigonometric Function

```
========== RESTART: D:\python\sprint3\task1.py ==========
Sine: [ 0.0000000e+00  1.0000000e+00  1.2246468e-16 -2.4492936e-16
 -1.0000000e+00]
Cosine: [ 1.0000000e+00  6.1232340e-17 -1.0000000e+00  1.0000000e+00
 -1.8369702e-16]
```

Exponential

```
========== RESTART: D:\python\spr
[  1   4   9  16  25  36  49  64  81 100]
```

SquareRoot

```
========== RESTART: D:\python\sprint3\task1.py ========
[1.         1.41421356 1.73205081 2.         2.23606798 2.44948974
 2.64575131 2.82842712 3.         3.16227766]
```

Matrix Multiplication

```
==========
[[ 1  4  9]
 [16 25 36]
 [49 64 81]]
```