

'''

Experiment No. 4: Write a Python Program to compute following computation on matrices :

- a) Addition of two matrices
- b) Subtraction of two matrices
- c) Multiplication of two matrices
- d) Transpose of a matrix

'''

```
import numpy
```

```
# Initializing matrices
```

```
x = numpy.array([[1, 2], [4, 5]])
```

```
y = numpy.array([[7, 8], [9, 10]])
```

```
# Using add() to add matrices
```

```
print("The element-wise addition of matrices is:")
```

```
print(numpy.add(x, y))
```

```
# Using subtract() to subtract matrices
```

```
print("The element-wise subtraction of matrices is:")
```

```
print(numpy.subtract(x, y))
```

```
# Using dot() to multiply matrices
```

```
print("The matrix multiplication (dot product) result is:")  
print(numpy.dot(x, y))
```

```
# Using "T" to transpose the matrix
```

```
print("The transpose of the given matrix x is:")  
print(x.T)
```