

1. Write a Python Program to Add Two Matrices?

Soln:

```
mat1 = [[1,2,3],
        [6, -4, -9],
        [3,6,9]]

mat2 = [[6,9,3],
        [1,-1,1],
        [0, 9, 11]]

result = []

for i in range(len(mat1)):
    row = []
    for j in range(len(mat1)):
        row.append(mat1[i][j]+mat2[i][j])

    result.append(row)

result
```

2. Write a Python Program to Multiply Two Matrices

Soln:

```
# Take 3x3 matrix
A = [[12, 7, 3],
     [4, 5, 6],
     [7, 8, 9]]

B = [[5, 8, 1, 2],
     [6, 7, 3, 0],
     [4, 5, 9, 1]]

result = [[0, 0, 0, 0],
          [0, 0, 0, 0],
          [0, 0, 0, 0]]

for i in range(len(A)):
    for j in range(len(B[0])):
```

```
        for k in range(len(B)):
            result[i][j] += A[i][k] * B[k][j]

for r in result:
    print(r)
```

3. Write a Python Program to Transpose a Matrix

Soln:

```
def transpose_matrix(matrix):
    # Get the number of rows and columns in the matrix
    num_rows = len(matrix)
    num_cols = len(matrix[0])

    # Create a new matrix with swapped dimensions
    transposed_matrix = [[0 for j in range(num_rows)] for i in range(num_cols)]

    # Fill the new matrix with the transposed values
    for i in range(num_rows):
        for j in range(num_cols):
            transposed_matrix[j][i] = matrix[i][j]

    return transposed_matrix
```

4. Write a Python Program to Sort Words in Alphabetic Order

Soln:

```
def sort_words_alphabetically(sentence):
    # Splitting the sentence into words
    words = sentence.split()

    # Sorting the words in alphabetical order
    sorted_words = sorted(words)

    # Joining the sorted words into a new sentence
    sorted_sentence = " ".join(sorted_words)

    return sorted_sentence
```

5. Write a Python Program to Remove Punctuation From a String

Soln:

```
import string

def remove_punctuation(text):

    punctuation = string.punctuation

    no_punctuation_text = "".join(char for char in text if char not in punctuation)

    return no_punctuation_text
```