```
# Get user input
n = int(input("Enter a number: "))

# Print multiplication table from 1 to 10
for i in range(1, 11):
    print(f"{n} x {i} = {n * i}")



# Get user input
a = int(input("Enter first number (a): "))
b = int(input("Enter second number (b): "))

# Swap using addition and subtraction
a = a + b
b = a - b
a = a - b

# Output the swapped values
print(f"After swapping: a = {a}, b = {b}")

# Get user input
s1 = input("Enter the main string (s1): ")
s2 = input("Enter the substring (s2): ")

# Check if s2 is a substring of s1
if s2 in s1:
    print("True")
else:
    print("False")
```

```
# Get user input
n = int(input("Enter a decimal number: "))

# Convert to binary and remove '0b' prefix
binary_representation = bin(n)[2:]

print(f"Binary representation: {binary_representation}")



matrix1 = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]
matrix2 = [[9, 8, 7], [6, 5, 4], [3, 2, 1]]

# Add matrices using list comprehension
result = [[matrix1[i][j] + matrix2[i][j] for j in range(len(matrix1[0]))] for i in range(len(matrix1))]

# Print result
for row in result:
    print(row)

import numpy as np

# Define matrices using NumPy
matrix1 = np.array([[1, 2, 3], [4, 5, 6], [7, 8, 9]])
matrix2 = np.array([[9, 8, 7], [6, 5, 4], [3, 2, 1]])

# Matrix addition using NumPy
result = matrix1 + matrix2
```

```
# Print result
print(result)



# Function to multiply two matrices
def multiply_matrices(A, B):
    rows_A, cols_A = len(A), len(A[0])
    rows_B, cols_B = len(B), len(B[0])

    # Check if multiplication is possible
    if cols_A != rows_B:
        raise ValueError("Number of columns in A must match number of rows in B")

    # Initialize result matrix with zeros
    result = [[0 for _ in range(cols_B)] for _ in range(rows_A)]

    # Multiply row of A with column of B
    for i in range(rows_A):
        for j in range(cols_B):
            for k in range(cols_A):  # cols_A == rows_B
                result[i][j] += A[i][k] * B[k][j]

    return result

# Example matrices (can replace with user input)
A = [[1, 2, 3], [4, 5, 6]]
B = [[7, 8], [9, 10], [11, 12]]

# Perform matrix multiplication
```

```
product_matrix = multiply_matrices(A, B)

# Print result
for row in product_matrix:
    print(row)

def second_largest(numbers):
    unique_numbers = list(set(numbers))  # Remove duplicates
    if len(unique_numbers) < 2:
        return None  # No second largest number exists
    unique_numbers.sort(reverse=True)  # Sort in descending order
    return unique_numbers[1]  # Return second element

# Example usage
numbers = [10, 20, 4, 45, 99, 99, 10]
print("Second largest:", second_largest(numbers))


def are_anagrams(s1, s2):
    return sorted(s1) == sorted(s2)  # Sort both strings and compare

# Example usage
s1 = input("Enter first string: ").replace(" ", "").lower()
s2 = input("Enter second string: ").replace(" ", "").lower()

print("Anagram:", are_anagrams(s1, s2))
```