Engineering Programming

Assignment 2

Class Name:	Engineering Programming
Assignment:	2
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Due Date:	10/16

1. Write a Python program to print the multiplication table of 5.

Answer:

```
for i in range(1, 10):
print(f'5 x {i} = {5*i}')
```

2. Write a Python program that takes a number from the user and prints whether it is positive, negative, or zero.

Answer:

```
num = int(input('Enter a number: '))
if num > 0:
print('Positive')
elif num < 0:
print('Negative')
else:
print('Zero')
```

3. Write a Python program that calculates the sum of all even numbers from 1 to 50 using a for loop.

Answer:

```
total = 0
for i in range(1, 51):
if i % 2 == 0:
total += i
print('Sum of even numbers:', total)
```

4. Write Python code to reverse a string entered by the user.

Answer:

```
s = input('Enter a string: ')
print('Reversed string:', s[::-1])
```

5. Create a function that takes two numbers and returns their product.

Answer:

```
def multiply(a, b):
return a * b
print(multiply(4, 6))
```

6. Write a program using a while loop that prints numbers from 10 down to 1.

Answer:

```
i = 10
while i >= 1:
print(i)
i -= 1
```

7. Write a Python program that counts how many vowels are in a string.

Answer:

```
s = input('Enter a string: ').lower()
vowels = 'aeiou'
count = 0
for ch in s:
if ch in vowels:
count += 1
print('Vowel count:', count)
```

8. Write a Python program to find the factorial of a number using recursion.

Answer:

```
def factorial(n):
if n == 0:
return 1
else:
return n * factorial(n-1)
print(factorial(5))
```

9. Write Python code using a lambda function to add two numbers.

Answer:

```
add = lambda a, b: a + b
print(add(10, 20))
```

10. Write a program that stores student names and scores in a dictionary and prints them.

Answer:

```
students = {'Alice': 85, 'Bob': 92, 'Charlie': 78}
for name, score in students.items():
print(f'{name}: {score}')
```