Assignment - 10 for loop and range

1. Write a python script to print the first 10 multiples of 5.

```
for e in range(10):
   print((e+1)*5,end=' ')
```

Output:-

```
5 10 15 20 25 30 35 40 45 50
```

2. Write a python script to print first 10 multiples of N.

```
n=int(input("Enter a number:"))
for e in range(10):
   print((e+1)*n,end=' ')
```

Output:-

```
4 8 12 16 20 24 28 32 36 40
```

3. Write a python script to print first M multiples of N.

```
n=int(input("Enter a number:"))
m=int(input("Enter range:"))
for e in range(m):
   print((e+1)*n,end=' ')
```

Output:-

```
Enter a number:5
Enter range:4
5 10 15 20
```

4. Write a python script to print the first 10 multiples of N in reverse order.

```
n=int(input("Enter a number:"))
for e in range(10):
   print((10-e)*n,end=' ')
```

Output:-

Enter a number:5

50 45 40 35 30 25 20 15 10 5

5. Write a python script to print table of user's choice.

```
n=int(input("Enter a number:"))
for e in range(10):
   print((e+1)*n,end=' ')
```

Output:-

Enter a number:7

7 14 21 28 35 42 49 56 63 70

6. Write a python script to print first N even natural numbers.

```
n=int(input("Enter a number:"))
for e in range(n):
   print((e+1)*2,end=' ')
```

Output:-

Enter a number:10

2 4 6 8 10 12 14 16 18 20

7. Write a python script to print first N odd natural numbers.

```
n=int(input("Enter a number:"))
for e in range(1,n*2,2):
   print(e,end=' ')
```

Output:-

Enter a number:5

1 3 5 7 9

8. Write a python script to print squares of first N natural numbers.

```
n=int(input("Enter a number:"))
for e in range(1,n+1):
```

```
    print(e**2,end=' ')
```

Output;-

```
Enter a number:5
1 4 9 16 25
```

9. Write a python script to print cubes of first N natural numbers.

```
n=int(input("Enter a number:"))
for e in range(1,n+1):
    print(e**3,end=' ')
```

Output:-

```
Enter a number:5
1 8 27 64 125
```

10. Write a python script to display all prime numbers within a range. # range start = 15 end = 45

```
start = 15
end = 45
print(f"Prime numbers within the range {start} to {end} are:")
for number in range(start, end + 1):
    if number > 1:
        is_prime = True
        for i in range(2, int(number ** 0.5) + 1):
            if number % i == 0:
                is_prime = False
                break
        if is_prime:
            print(number,end=' ')
```

Output:-

```
Prime numbers within the range 15 to 45 are:
```

17 19 23 29 31 37 41 43