Basic for Loop and range() Usage

1. Write a program to print numbers from 1 to 10 using a for loop.
2. Print numbers from 0 to 5 using range().
3. Print numbers from 5 to 15.
4. Print numbers from 10 to 1 using a for loop.
5. Print all even numbers between 1 and 20.
6. Print all odd numbers between 1 and 20.
7. Print numbers from 1 to 50, skipping multiples of 5.
8. Print numbers from 1 to 100 with a step of 10.
9. Print the square of numbers from 1 to 10.
10. Print the cube of numbers from 1 to 5.

```
for i in range(1,10):
  print(i,end=" ")
```

```
1 2 3 4 5 6 7 8 9
```

```
for i in range(0,5):
  print(i,end=" ")
```

```
0 1 2 3 4
```

```
for i in range(5,15):
  print(i,end=" ")
```

```
5 6 7 8 9 10 11 12 13 14
```

```
for i in range(10,0,-1):
  print(i,end=" ")
```

```
10 9 8 7 6 5 4 3 2 1
```

```
for i in range(1,21):
  if i%2==0:
    print(i,end=" ")
```

```
2 4 6 8 10 12 14 16 18 20
```

```
for i in range(1,20):
  if i%2!= 0:
    print(i,end=" ")
```

```
1 3 5 7 9 11 13 15 17 19
```

```
# Print numbers from 1 to 50, skipping multiples of 5.
for i in range(1,51):
  if i%5  != 0:
      print(i,end=" ")
```

```
1 2 3 4 6 7 8 9 11 12 13 14 16 17 18 19 21 22 23 24 26 27 28 29 31 32 33 34 36 37 38 39 41 42 43 44 46 47 48 49
```

```
# Print numbers from 1 to 100 with a step of 10.
for i in range(1,101,10):
  print(i,end=" ")
```

```
1 11 21 31 41 51 61 71 81 91
```

```
for i in range(1,11):
  print(i*i,end=" ")
```

```
1 4 9 16 25 36 49 64 81 100
```

```
Start coding or generate with AI.
```

```
for i in range(1,5):
  print(i*i*i,end=" ")
```

```
1 8 27 64
```

Aggregation and Counting

11. Find the sum of numbers from 1 to 10 using a for loop.

12. Find the sum of even numbers from 1 to 20.

13. Print the multiplication table of 5.

14. Print multiplication tables from 1 to 3.

15. Count how many numbers are there between 1 and 50.

16. Count how many even numbers are there between 1 and 100.

```
sum = 0
for i in range(1,11):
  sum += i
print(sum,end=" ")
```

```
55
```

```
even_sum = 0
for i in range(1,21):
  if i%2 == 0:
    even_sum += i
print(even_sum,end=" ")
```

```
110
```

```
for i in range(1,11):
  print(5,"*",i,"=",5*i)
```

```
5 * 1 = 5
5 * 2 = 10
5 * 3 = 15
5 * 4 = 20
5 * 5 = 25
5 * 6 = 30
5 * 7 = 35
5 * 8 = 40
5 * 9 = 45
5 * 10 = 50
```

```
for n in range(1,4):
  print("Table of",n)
  for i in range(1,11):
    print(n,"*",i,"=",n*i)
```

```
Table of 1
1 * 1 = 1
1 * 2 = 2
1 * 3 = 3
1 * 4 = 4
1 * 5 = 5
1 * 6 = 6
1 * 7 = 7
1 * 8 = 8
1 * 9 = 9
1 * 10 = 10
Table of 2
2 * 1 = 2
2 * 2 = 4
2 * 3 = 6
2 * 4 = 8
2 * 5 = 10
2 * 6 = 12
2 * 7 = 14
2 * 8 = 16
2 * 9 = 18
2 * 10 = 20
Table of 3
```

```
3 * 1 = 3
3 * 2 = 6
3 * 3 = 9
3 * 4 = 12
3 * 5 = 15
3 * 6 = 18
3 * 7 = 21
3 * 8 = 24
3 * 9 = 27
3 * 10 = 30
```

```
#Count how many numbers are there between 1 and 50
count = 0
for i in range(1,51):
    count += 1
print(count)
```

```
50
```

```
even_count = 0
for i in range(1,101):
    if i%2 == 0:
        even_count += 1
print(even_count)
```

```
50
```

Control Flow and Formatting

17. Print numbers from 1 to 30, but stop printing when the number becomes 20.

18. Print numbers from 1 to 20, but do not print 10.

19. Print numbers from 1 to 5, each on a new line.

20. Print numbers from 1 to 5 in a single line separated by space.

21. Print numbers from 5 to 1 in reverse order.

22. Print numbers from 1 to 5, along with their squares.

```
for i in range(1,31):
    if i == 20:
        break
    print(i,end=" ")
```

```
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
```

```
for i in range(1,21):
    if i == 10:
        continue
    print(i,end=" ")
```

```
1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 17 18 19 20
```

```
for i in range(1,6):
    print(i)
```

```
1
2
3
4
5
```

```
for i in range(5,0,-1):
    print(i,end=" ")
```

```
5 4 3 2 1
```

```
for i in range(1,6):
    print(i,"=",i*i)
```

```
1 = 1
2 = 4
3 = 9
```

```
4 = 16
5 = 25
```

Output Prediction and Execution Count

23.What will be the output of the following code?for i in range(3): print(i)

24.What will be the output of the following code?for i in range(1, 6, 2): print(i)

  25. How many times will the following loop execute?for i in range(10, 0, -2): print(i)

```
for i in range(3):
  print(i)
```

```
0
1
2
```

```
for i in range(1,6,2):
  print(i)
```

```
1
3
5
```

```
for i in range(10,0,-2):
  print(i)
  # 5 time will execute
```

```
10
8
6
4
2
```