1. Print numbers from 1 to 10 using a for loop.

```
for i in range(11):
  print(i)
```

```
0
1
2
3
4
5
6
7
8
9
10
```

2. Print all even numbers from 1 to 20.

```
for i in range(21):
  if i%2==0:
    print(i)
```

```
0
2
4
6
8
10
12
14
16
18
20
```

3. Print each character of the string: 'Python'.

```
for char in "python":
  print(char)
```

```
p
y
t
h
o
n
```

4. Using a while loop, print numbers from 5 down to 1.

```
i=5
while i>=1:
  print(i)
  i-=1
```

```
5
4
3
2
1
```

5. Write a loop to find the sum of numbers from 1 to 50.

```
total=0
for i in range(1,51):
  total+=i
print(total)
```

```
1275
```

6. Print the multiplication table of 5 (from 5×1 to 5×10).

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

7. Find how many vowels are present in the string 'Programming'.

```
String="Programming"
Vowels="a,e,i,o,u,A,E,I,O,U"
count=0
for char in String:
  if char in Vowels:
    count+=1
print(count)
```

```
3
```

8. Use a loop to reverse the string 'PythonLoops'.

```
String="PythonLoops"
reverse=" "
for char in String:
  reverse=char+reverse
print(reverse)
```

```
spooLnohtyP
```

9. Print numbers from 1–10, but skip 5 using continue.

```
for i in range(1,11):
  if i==5:
    continue
  print(i)
```

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

10. Print numbers from 1–20, but stop when number reaches 13 using break.

```
for i in range(1,21):
  if i==13:
    break
  print(i)
```

```
1
2
3
4
5
6
7
8
9
10
11
12
```

11. Write a loop to check if a number is prime.

```
n=int(input())
for i in range(2,n):
  if n%i==0:
    print("Not Prime")
    break
else:
  print("Prime")
```

```
20
Not Prime
```

12. Count how many times each character occurs in 'mississippi'.

```
String="mississippi"
char_count={}
for char in String:
  if char in char_count:
    char_count[char]+=1
  else:
    char_count[char]=1
print(char_count)
```

```
{'m': 1, 'i': 4, 's': 4, 'p': 2}
```

13. Using nested loops, print the pattern: *, **, ***, ****, *****.

```
rows=5
for i in range(1,rows+1):
  for j in range(i):
    print("*",end="")
  if i!=rows:
    print(",",end="")
```

```
*,**,***,****,*****
```

14. Write a loop to find the largest digit in the number 5847361.

```
number = 5847361
largest = 0
while number > 0:
    digit = number % 10
    if digit > largest:
        largest = digit
    number = number // 10
print(largest)
```

```
8
```

15. Write a loop to print the pattern: *****, ****, ***, **, *.

```
rows=5
for i in range(rows, 0 ,-1):
  for j in range(i):
    print("*",end="")
  if i!=1:
    print(",",end="")
```

```
*****,****,***,**,*
```