

▼ Conditional Statements - Examples

```
ord('a')
```

```
↵ 97
```

```
chr(97)
```

```
↵ 'a'
```

```
a = 10
b = 12
c = 5
print(a)
print(b)
print(c)
```

```
↵ 10
   12
   5
```

```
# multivariable assignment in a single line
a, b, c = 10, 12, 5
```

```
print(a)
print(b)
print(c)
```

```
↵ 10
   12
   5
```

```
a, b, c = 10, 12.5, [1,2,3]
```

```
print(a)
print(b)
print(c)
print(type(c))
```

```
↵ 10
   12.5
   [1, 2, 3]
   <class 'list'>
```

```
(2+3)*6
```

```
↵ 30
```

Q1:

What will be the output of the following code when m = 8, n = 6, and o = 4?

```
m, n, o = 8, 5, 3
print("m: ",m)
print("n: ",n)
print("o: ",o)

if m < 10:
    if n == 6 and o < 5:
        if m + n > 12:
            print("1")
        else:
            if n - o == 2:
                print("2")
            else:
                print("3")
    else:
        if o > 3:
            print("4")
        else:
            print("5")
else:
    if m > 5:
        if n * o > 24:
            print("6")
        else:
            print("7")
    else:
        print("8")
```

```
⇒ m: 8
   n: 5
   o: 3
   5
```

x, y, z = 4, 5, 2

```
if x>5:
    x = x>>y//~z
    if x>12:
        print("X value: ", x)
    else:
        print("Z value: ", z)
else:
    print("Y value: ", y)
```

```
⇒ Y value: 5
```

Q2:

Given the following pseudo-code, determine the output for x = 5, y = 3, and z = 4

```
x,y,z = 5,3,4
"""
if x + y > 7:
    z += 10
    if z * 2 < 10:
        if x - y == 2:
            print("G")
        else:
            if y % 2 == 0:
                print("H")
            else:
                print("I")
    else:
        if z + 1 > x:
            print("J")
```

```

        print("J")
    else:
        print("K")
else:
    if x + y < 8:
        if z - 2 <= y:
            print("L")
        else:
            print("M")
    else:
        print("N")
"""
```

```

➡ '\nif x + y > 7:\n    z += 10\n    if z * 2 < 10:\n        if x - y == 2:\n            print("G")\n        else:\n            if y % 2 == 0:\n                print("H")\n            else:\n                print("I")\n            else:\n                if z + 1 > x:\n                    print("J")\n                else:\n                    print("K")\n            \nelse:\n    if x + y < 8:\n        z - 2 <= v:\n            print("L")\n        else:\n            print("M")\n    else:

```

▼ Loops

```
# routine = ["wake up at 6", "prepare for gate", "have breakfast", "do some 9-5 work", "attend gate class"]
routine = ("wake up at 6", "prepare for gate", "have breakfast", "do some 9-5 work", "attend gate class")
```

```
for some_work in routine:
    print(some_work)
```

- wake up at 6
- prepare for gate
- have breakfast
- do some 9-5 work
- attend gate class

```
l = len(routine)
print(routine)
print(l)
```

```
→ ('wake up at 6', 'prepare for gate', 'have breakfast', 'do some 9-5 work', 'attend gate class')
```

```
match_tom = "India Vs Pakistan"
```

```
for c in match_tom:
    print(c)
```

Indiana
V
s
P
a
k
i
s
t
a
n

```
for i in range(0, 51, 2):
    print(i)
```

0
2
4

6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50

```
scores = [12, 34, 56, 28]
#0 1 2 3
```

```
for s in scores:
    print(s)
```

```
12
34
56
28
```

```
len(scores)
```

```
4
```

```
for i in range(len(scores)):
    print(i)
```

```
0
1
2
3
```

```
scores = [12, 34, 56, 28]
#0 1 2 3
```

```
for s in scores:
    print(s)
print("*"*50)
for i in range(len(scores)):
    print(scores[i])
```

```
12
34
56
28
*****
12
34
56
28
```

```
for i, s in enumerate(scores):
    print("current index: ", i)
    print("current value: ", s)
```

```

➡ current index: 0
  current value: 12
  current index: 1
  current value: 34
  current index: 2
  current value: 56
  current index: 3
  current value: 28

```

```
player = ["Bradman", "Richards", "Sachin", "Kohli"]
```

```
for i in range(len(player)-1, -2, -1):
    print(player[i])
```

```

➡ Kohli
  Sachin
  Richards
  Bradman
  Kohli

```

```
range(-len(player), 0)
```

```
➡ range(-4, 0)
```

```
for i in range(-len(player), 0):
    print(player[i])
```

```

➡ Bradman
  Richards
  Sachin
  Kohli

```

```
for i in range(len(player)-1, -1, -1):
    print(player[i])
```

```

➡ Kohli
  Sachin
  Richards
  Bradman

```

```
range(len(player), 0)
```

```
➡ range(4, 0)
```

```
range(len(player)-1, 0, -1)
```

```
➡ range(3, 0, -1)
```

```
range(len(player))
```

```
➡ range(0, 4)
```

```
range(-len(player))
```

```
➡ range(0, -4)
```

```
for i, name in enumerate(player):
    print(i, name)
```

```

➡ 0 Bradman
  1 Richards
  2 Sachin
  3 Kohli

```

```
["a","b","c"]
```

```
↵ ['a', 'b', 'c']
```

```
l = [(0, "a"),(1,"b"),(2,"c")]
```

```
for i, v in l:  
    print(i, v)
```

```
↵ 0 a  
   1 b  
   2 c
```

```
players = [["Virat", "Rohit"], ['Babar', "Rizwan"], ["Maxi", "Warner"]]
```

```
for player_list in players:  
    for player in player_list:  
        print(player)
```

```
↵ Virat  
   Rohit  
   Babar  
   Rizwan  
   Maxi  
   Warner
```

```
election_parties = ["bjp", "congress", "dmk"]
```

```
constituency = [300, 299, 40]
```

```
# bjp 300  
# congress 299  
# dmk 40
```

```
for party, value in zip(election_parties, constituency):  
    print(party, value)
```

```
↵ bjp 300  
   congress 299  
   dmk 40
```

```
election_parties = ["bjp", "congress", "dmk", "x"]
```

```
constituency = [300, 299, 40, 25]
```

```
# bjp 300  
# congress 299  
# dmk 40
```

```
for party in election_parties:  
    print(party)
```

```
for party, value in zip(constituency, election_parties):  
    print(party, value)
```

```
↵ bjp  
   congress  
   dmk  
   x  
   300 bjp  
   299 congress  
   40 dmk  
   25 x
```

```
l1 = ['a','b','c']
l2 = (1,2,400,3)
l3 = {100,200,300}
l4 = "Virat"
```

```
for i, (a,b,c,d) in enumerate(zip(l1,l2,l3,l4)):
    print(i, a,b,c,d)
```

```
⇒ 0 a 1 200 V
   1 b 2 100 i
   2 c 400 300 r
```

```
for c in "Virat":
    print(c)
```

```
⇒ V
   i
   r
   a
   t
```

```
l1 = ['a','b','c','d','e']
```

```
for i in range(0, len(l1), 3):
    print(l1[i])
```

```
⇒ a
   d
```

While Loop

```
while <condition>:
    # section of code will get executed
```

```
l1 = ["rbr", "jay", "hari", "venky"]
```

```
n = len(l1)
print("n: ", n)
i = 0
print("i: ", i)
while i<n:
    print("i: ", i)
    print(l1[i])
    i+=1
```

```
⇒ n: 4
   i: 0
   i: 0
   rbr
   i: 1
   jay
   i: 2
   hari
   i: 3
   venky
```

For loop: Use it when you are iterating through some sequence(either a string, list, tuple, dictionary, or set)

While Loop: Suppose you want to do some operations based on some conditions, then use while loop.

```
i = 0

n = 5

while i<n:
    print(i)

# i didnt increment value i here

# so this while loop will go into infinite loop
```

```
i = 10
j = 5

while i>5:
    while j>2:
        print("j: ", j)
        j-=1
    print("i:", i)
    i-=1
```

```
↵ j: 5
  j: 4
  j: 3
  i: 10
  i: 9
  i: 8
  i: 7
  i: 6
```

```
# Next 3 - 5 PM
```