

1.What are the two values of the Boolean data type? How do you write them?

Ans :- Two Values of Boolean data type are True and False. The way of writing them is say for any variable x=True or x=False. Just to note the T and F are going to be in Capital else it's going to show an error.

2. What are the three different types of Boolean operators?

Ans:- Three types of Boolean operator are AND, OR, NOT.

3. Make a list of each Boolean operator's truth tables (i.e. every possible combination of Boolean values for the operator and what it evaluates).

Ans:-

For AND

TRUE AND TRUE = TRUE	1 1 1
TRUE AND FALSE = FALSE	1 0 0
FALSE AND TRUE = FALSE	0 1 0
FALSE AND FALSE = FALSE	0 0 0

For OR

TRUE OR TRUE = TRUE	1 1 1
TRUE OR FALSE = TRUE	1 0 1
FALSE OR TRUE = TRUE	0 1 1
FALSE OR FALSE = FALSE	0 0 0

For NOT

NOT TRUE = FALSE	0 1
NOT FALSE = TRUE	1 0

4. What are the values of the following expressions?

(5 > 4) and (3 == 5)

not (5 > 4)

(5 > 4) or (3 == 5)

not ((5 > 4) or (3 == 5))

(True and True) and (True == False)

(not False) or (not True)

Ans:- False

False

True

Flase

False

True

5. What are the six comparison operators?

Ans :- The six comparison operators are:-

>

>=

<

<=

==

!=

6. How do you tell the difference between the equal to and assignment operators? Describe a condition and when you would use one.

Ans:- When we use equals to that means that we are assigning a value to that particular variable or thing ex.:- x=10 here 10 is being assigned to x whereas when we use assignment operators like == that means we are comparing values ex.:- y=10 so x==y which would return True as both x and y have the same value.

7. Identify the three blocks in this code:

```
spam = 0
if spam == 10:
    print('eggs')
if spam > 5:
    print('bacon')
else:
    print('ham')
    print('spam')
    print('spam')
```

Ans:- The **First block** of if spam==10 then it will print eggs. The **second block** is if spam>5 which will print bacon and the **third block** is of else.

9.If your program is stuck in an endless loop, what keys will you press?

Ans:- We will press Ctrl+C

10. How can you tell the difference between break and continue?

Ans :- When we use break statement it will break the statement at that particular point ex:- if x==4:

break

It will break the loop when x reaches 4

Whereas continue keep on moving from that point skipping that point. If x==4:

continue

It will skip 4 and continue from there.

11. In a for loop, what is the difference between range(10), range(0, 10), and range(0, 10, 1)?

Ans:- All 3 will show the same result i.e 0,1,2,3,4,5,6,7,8,9

12. Write a short program that prints the numbers 1 to 10 using a for loop. Then write an equivalent

program that prints the numbers 1 to 10 using a while loop.

Ans :- for i in range(1,11):
 print(i)

 i=1
while i<11:
 print(i)
 i+=1

13. If you had a function named `bacon()` inside a module named `spam`, how would you call it after importing `spam`?

Ans:- `spam.bacon()`