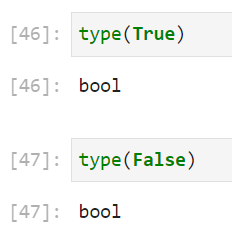
1.What are the two values of the Boolean data type? How do you write them?

The Boolean value can be of 2 types that is either True or False these are special version of 1 and 0 respectively.

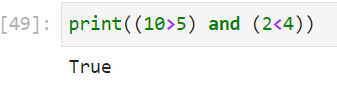


2. What are the three different types of Boolean operators?

The three basic types of Boolean operators are:

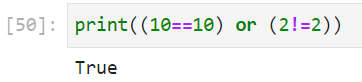
AND: True if both conditions are true

Eg:



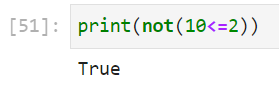
OR: True if at least one condition is true

Eg:



NOT: True only if condition is false

Eg:



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 evaluate ).

|  |  |
| --- | --- |
| **Combination** | **Evaluated value** |
| True and True | True |
| True and False | False |
| False and True | False |
| False and False | False |
| True or True | True |
| True or False | True |
| False or True | True |
| False or False | False |
| Not true | False |
| Not false | True |

4. What are the values of the following expressions?

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

not (5 > 4) >> False

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

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

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

(not False) or (not True) >> True

5. What are the six comparison operators?

Less than (<)

Greater than (>)

Less than or equal to (<=)

Greater than or equal to (>=)

Equal to (==)

Not Equal to (!=)

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

Assignment operator (=) is used to assign the value on the right to the variable on the left.

Eg: a = 5   
 b =5  
 Equal to operator (==) checks whether the two given operands are equal or not, if so it returns true

Eg: a == b

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

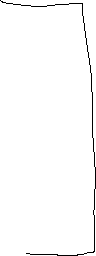


print('eggs')

if spam > 5:



print('bacon')



else:

print('ham')



print('spam')

print('spam')

8. Write code that prints Hello if 1 is stored in spam, prints Howdy if 2 is stored in spam, and prints Greetings! if anything else is stored in spam.

spam = input("Input a number:")

if spam == 1:

print('Hello')

elif spam == 2:

print("Howdy")

else:

print("Greetings!")

9.If your programme is stuck in an endless loop, what keys you’ll press?

CTRL + C

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

|  |  |
| --- | --- |
| **Break** | **Continue** |
| The control exits from the loop | The control remains within the loop |
| It is used to stop the execution of the loop at a specific condition | It is used to skip a particular iteration of the loop |

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

The Range function is used to iterate over a sequence of numbers.

Range(n) generates an iterator to progress the integer number starting from 0 and ending with n- So range(10) if we list it will give [0, 1,2, 3, 4, 5, 6, 7, 8, 9].

Range (begin, end) it will generate the sequence starting from number mentioned in begin and ending with n-1 the number mentioned in end. So Range(0,10) if we list it will give [0, 1,2, 3, 4, 5, 6, 7, 8, 9].

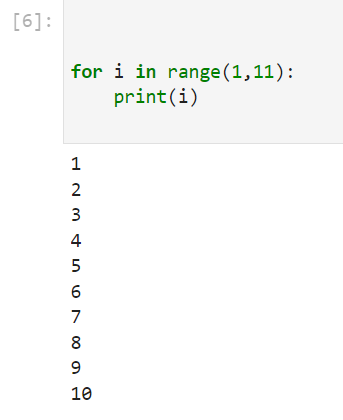
Range(begin, end, step) the third argument step can be a negative number or a positive number but never zero, So range(0, 10, 1) list is [0, 1,2, 3, 4, 5, 6, 7, 8, 9].

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.

For Loop:

for i in range(1,11):

print(i)



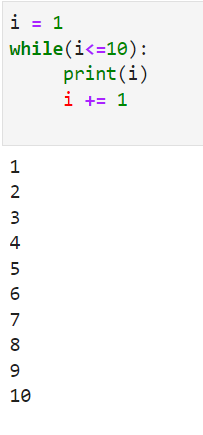
While Loop:

i = 1

while(i<=10):

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?

The function can be called by spam.bacon()