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

Answer: ‘True’ and ‘False’ are the two values of Boolean data type. You can say True=1; False=0

A=True; B=False; 1==1, 2>3

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

Answer: 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).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| A | B | A OR B | A AND B |  | A | NOT A |
| FALSE | FALSE | FALSE | FALSE |  | FALSE | TRUE |
| TRUE | FALSE | TRUE | FALSE |  | TRUE | FALSE |
| FALSE | TRUE | TRUE | FALSE |  |  |  |
| TRUE | TRUE | TRUE | 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?

Answer: < > == != >= <=

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

Answer: The symbol for equal to is “==” and the symbol for assignment operator is “=”.

Suppose you have to assign a value to a variable: a=10

Suppose you want to compare if a is equal to 10 then: a==10

7. Identify the three blocks in this code:

spam = 0

if spam == 10: 1st Block

print('eggs') 1st Block

if spam > 5: 2nd Block

print('bacon') 2nd Block

else: 3rd Block

print('ham') 3rd Block

print('spam') 3rd Block

print('spam') 3rd Block

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.

Answer:

spam = int (input(“Please enter 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?

Answer: Ctrl + C

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

Answer: Break will stop the loop and go out of the loop and execute next statement

Continue will continue the loop and skip the expressions present after this statement inside the loop and run for next iteration.

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

Answer: All are same in this instance, just the way of expressing (start range, end range, gap) is different.

range(10) : Iterates for 0 to 9

range(0,10): Iterates for 0 to 9

range(0, 10, 1): Iterates for 0 to 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.

Answer:

for i in range(1, 11):

print(i)

a=1

while a<=10:

print(a)

a+=1

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

import spam

spam.bacon()