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

Answer: Boolean data type represents two value i.e TRUE or FALSE.

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

Answer: Three different type of Boolean operators are: AND, OR and NOT operators

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 ).

Answer:

And Operator:

a=50

b=25

a>40 and b>40

*False*

a>100 and b<50

*False*

a==0 and b==0

*False*

a>0 and b>0

True

Or Operator:

a=50

b=25

a>40 or b>40

*True*

a>100 or b<50

*True*

a==0 or b==0

*False*

a>0 or b>0

*True*

Not operator

a=10

a>10

*False*

not(a>10)

*True*

4. What are the values of the following expressions?

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

not (5 > 4)

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

not ((5 &gt; 4) or (3 == 5))

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

(not False) or (not True)

Answer:

(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: "==" is a equal to operator and "=" is assignment operator.

Example of assignment operator:

a=1

b=2

Example of equal to operator:

if(a==b):

print("a and b are equal")

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')

Answer:

spam = 0

(Block 1)-

if spam == 10:

print('eggs')

(Block 2)-

if spam > 5:

print('bacon')

(Block 3)-

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.

Answer:

spam = 0

if (spam == 1):

print("Hello")

elif (spam == 2):

print('Howdy')

else:

print("Greeting!")

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' breaks the loop and takes loop to end

and continue takes loop to next iteration

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

Answer:

range(10): output: 0,1,2,3,4,5,6,7,8,9--- here user will get a series of numbers that starts at 0 and includes every whole number up to, but not including, the number that user have provided as the stop.

range (0,10) output: 0,1,2,3,4,5,6,7,8,9---here user sets starting range as well as number to stop the range

range (0,10,1) output: 0,1,2,3,4,5,6,7,8,9---here user sets starting range as well as number to stop the range also the 3rd value sets the steps for the range.

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)

i=1

while i<=10:

print(i)

i=i+1

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

Answer:

import spam

spam.bacon()