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

Ans: True, False

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

Ans: 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 evaluate ).

Ans: True = 1 , False = 0

|  |  |  |
| --- | --- | --- |
| A B A and B  1 1 1  1 0 0  0 1 0  0 0 0 | A B A or B  1 1 1  1 0 1  0 1 1  0 0 0 |  |

4. What are the values of the following expressions?

Answers

(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?

Ans: less than (<), greater than(>), less than or equal to(<=), greater than or equal to(>=), equal to(==), and 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.

Ans: The “=” is an assignment operator used to assign the value on the right to the variable on the left.

Example:

a = 10;

b = 20;

ch = 'y';

The ‘==’ equal to operator checks whether the two given operands are equal or not. If so, it returns true. Otherwise it returns false.

Example:

5==5

This will return true.

7. Identify the three blocks in this code:

Answer:

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

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.

Ans:

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?

Ans: Ctrl + C

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

Ans:

Break: It is used to stop the execution of the loop at a specific condition.

Continue: 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)?

Ans: All of these statements will give the same result. i.e it will print the numbers form 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.

Ans:

|  |  |
| --- | --- |
| #for loop  for i in range(1,11):  print(i) | #while loop  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?

Ans: The function can be called with spam.bacon()