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

The two values of the Boolean data type are True and False. They are written as they are, with the first letter capitalized.

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

The three different types of Boolean operators are AND, OR, and 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).

AND truth table:

A B A AND B

False False False

False True False

True False False

True True True

OR truth table:

A B A OR B

False False False

False True True

True False True

True True True

NOT truth table:

A NOT A

False True

True False

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?

The six comparison operators are:

== (equal to)

!= (not equal to)

(greater than)

< (less than)

= (greater than or equal to)

<= (less than or 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.

The equal to operator (==) is used to compare two values for equality, while the assignment operator (=) is used to assign a value to a variable. For example, if we want to check if a variable x is equal to 5, we would use the equal to operator like this: x == 5. If we want to assign the value 5 to the variable x, we would use the assignment operator like this: x = 5.

7.Identify the three blocks in this code:

bash

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spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

print('spam')

print('spam')

The three blocks in this code are:

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.

bash

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if spam == 1:

print("Hello")

elif spam == 2:

print("Howdy")

else:

print("Greetings!")

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

You can press "Ctrl + C" keys on your keyboard to force stop the program.

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

The "break" statement is used to exit a loop completely when a certain condition is met, while the "continue" statement is used to skip the current iteration of a loop and move on to the next one.

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

range(10): This will iterate over the numbers 0 to 9.

range(0, 10): This will also iterate over the numbers 0 to 9.

range(0, 10, 1): This will also iterate over the numbers 0 to 9, with a step size of 1 (which is the default step size if not specified).

10.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:

scss

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for i in range(1, 11):

print(i)

While loop:

css

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i = 1

while i <= 10:

print(i)

i += 1

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

arduino

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import spam

spam.bacon()

Or you could import just the function itself like this:

csharp

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from spam import bacon

bacon()