1. Boolean Data Type Values:

The two values of the Boolean data type are True and False. They should be written with the first letter capitalized.

2. Three Boolean Operators:

and

or

not

3. Boolean Operators' Truth Tables:

AND Operator

True and True -> True

True and False -> False

False and True -> False

False and False -> False

OR Operator

True or True -> True

True or False -> True

False or True -> True

False or False -> False

NOT Operator

not True -> False

not False -> True

4. Values of the Given 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. Six Comparison Operators:

== (Equal to)

!= (Not equal to)

< (Less than)

> (Greater than)

<= (Less than or equal to)

>= (Greater than or equal to)

6. Equal to vs Assignment Operators

= is the assignment operator. It's used to assign values to variables. E.g., x = 10.

== is the equal to operator. It's used to compare two values. E.g., if x == 10:

You'd use = when you want to set a value and == when you want to test for equality.

7. Blocks in the Given Code:

The blocks are

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

8. Code for the Given Condition

if spam == 1:

print("Hello")

elif spam == 2:

print("Howdy")

else:

print("Greetings!")

9. Endless Loop Exit:

If your program is stuck in an endless loop, you can typically interrupt it by pressing Ctrl + C.

10. Difference Between Break and Continue:

break exits out of the loop entirely, while continue skips the rest of the current iteration and goes to the next iteration of the loop.

11. Differences in the Given Range Functions:

There's no difference among the functions range(10), range(0, 10), and range(0, 10, 1). All three produce numbers from 0 up to, but not including, 10.

12. Numbers 1 to 10 with Loops:

Using for

for i in range(1, 11):

print(i)

Using while

i = 1

while i <= 10:

print(i)

i += 1

13. Calling a Function from a Module:

If you have imported the spam module and want to call the bacon() function you would use

spam.bacon()