

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

Answer: True and False

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

Answer: 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).

Answer:

Logic 1	Logic 2	OR	AND	NOT (with or)	NOT (with and)
TRUE	TRUE	TRUE	TRUE	FALSE	TRUE
TRUE	FALSE	TRUE	FALSE	FALSE	TRUE
FALSE	FALSE	FALSE	FALSE	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?

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: For equals we use '==' this operator, while to assign the value to the variable, we can use the '=' sign.

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')
```

Three blocks are colored in three different colors.

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:

```
if spam == 1:
    print('Hello')
elif spam == 2:
    print('Howdy')
else:
    print('Greetings!')
```

9. What keys will you press if your program is stuck in an endless loop?

Answer: Ctrl + C

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

Answer: A **break** is a loop control command that terminates the ongoing loop. While a continue is also a loop control command, that ends the current iterator of the loop and continues to the next iterator.

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

Answer: There is no difference between all of them, all will give the same result.

12. Write a short program that prints the numbers 1 to 10 using a for a loop. Then write an equivalent program that prints the numbers 1 to 10 using a while loop.

Answer:

For loop:

```
for i in range(1,10):  
    print(i)
```

While loop:

```
i = 1  
while i <= 10:  
    print(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: spam.bacon()