

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

True, False

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

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).

And:

1st operand	2nd operand	Result
True	True	True
True	False	False
False	True	False
False	False	False

Or:

First operand	Second operand	Result
True	True	True
True	False	True
False	True	True
False	False	False

Not:

Operand	Result
True	False

False True

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?

==, !=, >, <, >=, <=

6. How do you tell the difference between the equal to and assignment operators? Describe a condition and when you would use one.

assignment operators (=) is used to assign the value on the right to the variable on the left. On the other hand, equal to (==) is a comparison operator that is used to verify if the RHS and the LHS of the operators are equal or not

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')
```

The codes are unclear as no indentation is maintained. However, I have marked them in 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.

```
spam=5
```

```
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?

CTRL+C key

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

Break causes an exit from the 'for' or 'while' loop. On the other hand, 'continue' causes an exit from the current iteration only, but continues executing the remaining iterations of the loop

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

All provides the same output. However, they can be used to provide different outputs. For example, by using a format as `range(0,10)` we can change the starting value of the iteration while by using a format like `range(0, 10, 1)` we can skip taking every consecutive value for iterations.

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.

for loop

```
for i in range(1,11):
```

```
    print(i)
```

while loop

```
i=1
```

```
while i<11:
```

```
    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`?

```
spam.bacon()
```