

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 evaluates to).

A	B	A and B	A or B	Not A	Not B
TRUE	TRUE	TRUE	TRUE	FALSE	FALSE
TRUE	FALSE	FALSE	TRUE	FALSE	TRUE
FALSE	TRUE	FALSE	TRUE	TRUE	FALSE
FALSE	FALSE	FALSE	FALSE	TRUE	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) ———> False

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.

Equal to is used for checking condition if values are equal. Assignment operator is used to assign value or expression result to variable.

For example : `a = 5`, this is assignment operator where we assign value 5 to a

`A == 5`, here we check if value of A is 5 or not.

7. Identify the three blocks in this code:

```
spam = 0
```

```
if spam == 10:
```

```
    print('eggs')    ———> Block 1
```

```
if spam > 5:
```

```
    print('bacon').  ———> Block 2
```


```
else:
```

```
    print('ham')
```

```
    print('spam')
```

```
    print('spam')
```

————> Block 3



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 = int(input("Enter a value for spam"))
```

```
if spam == 1:
```

```
    print('hello')
```

```
if spam == 2:
```

```
    print('Howdy')
```

```
else:
```

```
    print('Greetings!')
```

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

Ctrl + c

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

Break will break whole loop execution.

Continue will make the flow to next item.

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

range(10) = it will start from item from 0 and ends at 9

range(0,10) = it will start from item from 0 and ends at 9, first parameter of range that is '0' is start of range, and second parameter '10' is end of range that total items count

range(0, 10, 1) = it will start from item from 0 and ends at 9, first parameter of range that is '0' is start of range, and second parameter '10' is end of range that total items count, third parameter which specify the difference between range of items.

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-----
```

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

```
    print(i)
```

```
While -----
```

```
i = 1
```

```
while i < 11:
```

```
    print(i)
```

```
    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()
```