

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

Solution

The Python Boolean type has only two possible values: True. False

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

Solution

The 3 different types of Boolean operators are:

AND will provide search results containing **both or all** your keywords.

OR will provide search results containing **at least one** of your keywords.

NOT will provide search results containing **the first** of your keywords **but not the second**.

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).

Solution

NOT

Input	Output
0	1
1	0

OR

Input1	Input2	Output
0	0	0
0	1	1
1	0	1
1	1	1

AND

Input1	Input2	Output
0	0	0
0	1	0
1	0	0
1	1	1

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?

Solution

== Equal x == y

!= Not equal x != y

> Greater than x > y

< Less than x < y

>= Greater than or equal to x >= y

<= Less than or equal to x <= y

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

Solution

The = is a simple assignment operator. It assigns values from right side operands to the left side operand. While on the other hand == checks if the values of two operands are equal or not. If yes, the condition becomes true, and it returns a non-zero value.

7. Identify the three blocks in this code:

```
spam = 0
```

```
if spam == 10: -----> IF BLOCK
```

```
    print('eggs')
```

```
if spam > 5: -----> IF – ELSE BLOCK
```

```
    print('bacon')
```

```
else: -----> IF – ELSE BLOCK
```

```
    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.

Solution

```
spam = input("Enter value:")

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?

Solution - CTRL + C

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

Solution

Break: A break statement in Python alters the flow of a loop by terminating it once a specified condition is met.

Continue: The continue statement in Python is used to skip the remaining code inside a loop for the current iteration only.

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

Solution

All are the same iterating from low range 0 to high range 10 with step size 1

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.

Solution

For Loop

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

While Loop

```
s = 1
while ( s <=10):
    print(s)
    s = s + 1
```

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

Solution

```
import spam
```

```
spam.bacon()
```