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 ).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X | Y | X and Y | X or Y | Not X |
| 0 | 0 | 0 | 0 | 1 |
| 0 | 1 | 0 | 1 | 1 |
| 1 | 0 | 0 | 1 | 0 |
| 1 | 1 | 1 | 1 | 0 |

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 operator: =

Comparison operator: ==

A=10

B=5

Print(A==B)

Output: False

7. Identify the three blocks in this code:

spam = 0

if spam == 10: #Block 1

print('eggs') #Block 1

if spam > 5: #Block 2

print('bacon') #Block 2

else: #Block 2

print('ham') #Block 2

print('spam') #Block 3

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 = input("Enter a value for spam: ")

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

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

Break: This command instructs to stop running the loop altogether

Continue: This command instructs to skip to next iteration

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

There is no difference in operations. The range will be 0,1,2,3,4,5,6,7,8,9

But we have the option to specify the start end and steps as Range(start,end,step size)

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 i in range (0,10)

print(1+i)

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

Spam.bacon()