Level 1: Basic Math and Strings

1 b) Expression: 4+7-2+10-6+2; Result: 15

2 b) Expression: 1\*4/1\*5\*3/9; Result: 6.666666666666667

3 a) Expression: 9/3; Result: 3.0

b) Expression: 56/5; Result: 11.2

4) Expression: 9/3; Result: 3

Expression: 56/5; Result: 11

5) a) “==” is not the same as “=” because “=” is used to define or assign the value of a word or string. The double equal sign questions the computer: “is that equal to this thing?”

b) “=” means giving a value to the computer or telling it “this equals that”.

6) a) 5\*5-4+2==100/4-2

True

b) 64\*48+12<45/12-95

False

7) When we type apple in quotes the computer makes it a string. Without the quotes it won’t understand the word apple until it’s been assigned value.

b) Because when we type it in quotations, it is then a string and the program thinks of it as a word or a phrase and not a number.

8) a) “appl” + “e” works because two strings can be added. “apple” - “e” does not work because two strings cannot be subtracted.

b) When we put it in multiplication, Python writes down the number that many times. If we try to divide however, Python does not understand it because a string cannot be divided.

9)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| NAME | R | A | G | H | A | V |
| LETTER INDEX | 0 | 1 | 2 | 3 | 4 | 5 |

10) a) It does not print “l” because the computer started counting at 0. So, index 4 in the word “Hello” will be “o”.

b) It prints a space “ “. This is because Python also counts spaces as the index.

11) It says string index is out of range. This means that the word or expression typed does not have that index or it’s too high.