Level 1: Basic Math & Strings

Access the Tutorial and start at “Lesson 3: Math”.

Questions

1. Complete “Lesson 3: Math – Math Basics” by typing the sample commands in the black area of the IDE.

a. Create your own expression using 5 “+” and “-“ operators.

5+9+6-8-2+4

b. List your expression and the result below.

5+9+6-8-2+4=14

2. Complete “Lesson 3: Math – More Operators” by typing the sample commands in the black area of the IDE.

a. Create your own expression using 5 “\*” and “/” operators.

1\*5\*2\*4/10/2

b. List your expression and the result below.

1\*5\*2\*4/10/2=2

3. Complete “Lesson 3: Math – More Division” by typing the sample commands in the black area of the IDE.

a. Create one division expression that gives a whole number answer

4/2=2

b. And one division expression that gives a decimal number answer.

5/2=2.5

c. List your expressions and the results below.

4/2=2 5/2=2.5

4. Complete “Lesson 3: Math – Floats” by typing the sample commands in the black area of the IDE.

a. Use the “round()” function for the expressions you created in question #3 above.

b. List your “round()” expressions and the results they return below.

Round(5/2)=2

5. Read through “Lesson 3: Math – Comparison Operators”.

a. Why do you think Equals is “==” instead of “=”?

I think it is == because it is less confusing then having one equal sign and because one equal sign already stands for assigning a variable a value.

b. What does “=” mean?

It means you are assigning a variable a value.

6. Complete “Lesson 3: Math – Practice” and “Lesson 3: Math – Practice Answers” by typing the sample commands in the black area of the IDE.

a. Create an expression using 5 different operators that returns a “True” result

6/2+6+2-8-5==-2

b. And an expression using 5 different operators that returns a “False” result.

6/2+6+2-8-5==1

c. List your expressions and the results returned below.

6/2+6+2-8-5==-2 True 6/2+6+2-8-5==1 False

7. Complete “Lesson 4: Strings – Strings” and “Lesson 4: Strings – Examples” by typing the sample commands in the black area of the IDE.

a. Explain why typing “apple” works and why typing apple without quotes gives an error.

By having “apple” it shows the program that it is a string. If the “” aren’t there it tells the computer it is a code so it says error.

b. Also explain why “2 + 5” does not equal 7.

By having 2+5 in the quotes it says that 2+5 is a variable and it will be the same in the code.

8. Complete “Lesson 4: Strings – Operators” by typing the sample commands in the black area of the IDE.

a. Explain why typing “appl” + “e” works and why typing “apple” - “e” gives an error.

“Appl” + e is adding a e to the end of the word but “appl” – e isn’t possible because there isn’t an e in “appl”

b. Also explain why “Hello” \* 10 works but why “Hello” / 10 does work.

Hello\*10 is saying write hello 10 times but you can’t write divide hello by 10 because it is a string and a integer.

9. Complete “Lesson 4: Strings – Indexes” by typing the sample commands in the black area of the IDE.

a. List the letters in your first name and the index for each letter in your first name.

T h a n u j a n N a n d a k u m a r

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

10. Complete “Lesson 4: Strings – Indexes Examples” by typing the sample commands in the black area of the IDE.

a. Explain why print(“Hello!”[4]) does not print “l”.

Computers start cpuntinh at 0 not 1.

b. What does print(“Hay, Bob!”[4]) print? For a hint try print(“Hay, Bob!”[3]) and print(“Hay, Bob!”[5])

11. Complete “Lesson 4: Strings – Rules” by typing the sample commands in the black area of the IDE.

a. Explain why print(“Hello!”[7]) gives an error.

It gives an error because the 7th letter does not exist.