Answers to Questions from TT1.2

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1. Desk Check Task: Calculate Bill Total

Required Variables:

Real (floating point):

appetizer_price, main_price, dessert_price

total_price

Pseudocode:

Read the value of *appetizer_price*

Read the value of *main_price*

Read the value of *dessert_price*

total_price = appetizer_price + main_price + dessert_price

Print '$' then the value of *total_price* ***to the terminal showing two decimal places.***

Test Data:

	First data set	Second data set
appetizer_price	10.30	12.40
main_price	34.00	41.00
dessert_price	8.50	9.80

Expected Result:

	First data set	Second data set
Output:	$52.80	$63.20

Desk check - fill this in by completing the missing code in **bill_total.rb** (in the tasks Resources folder) then running it with the test data above:

	Statement	*appetizer_price*	*main_price*	*dessert_price*	*total_price*	*output*
First Pass	*Read the value of appetizer_price*	*10.30*				
	Read the value of main_price		*34.00*			
	Read the value of dessert_price			*8.50*		
	Calculate the total_price				*52.80*	
	Convert to dollars				*$52.80*	
	Output the total_price					*$52.80*
Second Pass	*Read the value of appetizer_price*	*12.40*				
	Read the value of main_price		*41.00*			
	Read the value of dessert_price			*9.80*		
	Calculate the total_price				*63.20*	
	Convert to dollars				*$63.20*	
	Output the total_price					*$63.20*

2. Short Answer Questions:

Focus in the following on using the correct computing terminology.

Here are some terms that may help you: Assignment, evaluate, increment,

1. Using a few sentences explain why it may be important to execute statements in the correct sequence. (eg: what might happen if the last statement in Program 2 was executed earlier)

   The program will not be executed as the last statement in the program is the assignment of the function "main". If the last statement is executed earlier, the program can't recognize the designated function as it is after the assignment.

2: The code main_price = 10 is an example of which kind of programming statement?

This is an Assignment statement.

3: What actions does the computer perform when it executes `a = a + b`?

The computer first evaluate the value of a
Then it assigns the value of the first a variable

4: How would the value of variable i change in the statement i = i + 1?

The value of i will be increased by 1

5: *What sort of types will Ruby use to store the following variables* (given the associated variable values)?

Data	Type
A person's name e.g: "Fred Smith"	String
Number of students in a class e.g: 23	Interger
Average age of a group of people e.g: 23.5	Float
A temperature in Celsius e.g: 45.7	Float
True or false e.g: 1 == 2	Boolean

Note: possible types include: Integer, String, Float, Boolean

6: *Variables have a scope – what are two different scopes variables can have in Ruby?*

Global and Local

See the lesson materials for help with Question 6. You could also see:

https://www.tutorialspoint.com/ruby/ruby_variables.htm