Answers to Questions from TT1.2

Name:
Student ID:

1. Desk Check Task: Calculate Bill Total

Required Variables:

Integer: appetizer_price, main_price, dessert_price

Real (floating point): total_price

Pseudocode:

Read the value of appetizer_price (in cents)

Read the value of main_price (in cents)

Read the value of dessert_price (in cents)

total_price = appetizer_price + main_price + dessert_price

total_price = total_price / 100 #Comment: convert to dollars

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

Test Data:

	First data set	Second data set
appetizer_price	1030	1240
main_price	3400	4100
dessert_price	850	980

Expected Result:

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

Desk check:

	Statement	*appetizer_price*	*main_price*	*dessert_price*	*total_price*	*output*
First Pass	*Read the value of appetizer_price*	*1030*				
	Read the value of main_price		*3400*			
	Read the value of dessert_price			*850*		
	Calculate the total_price				*5280*	
	Convert to dollars				*52.80*	
	Output the total_price					*$52.80*
Second Pass	*Read the value of appetizer_price*	*1240*				
	Read the value of main_price		*4100*			
	Read the value of dessert_price			*980*		
	Calculate the total_price				*6320*	
	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)

It is crucial that statements are executed in the correct sequence, if not the program will produce incorrect results. It is vital that the statement that is ran in the correct sequence so that it can produce correct results.

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

This is a assignment statement.

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

The computer first adds the variable ‘’a” and the variable “b” together.
Then it stores the result in the variable “a”

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

The value of i will be = (i+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	Integer
Average age of a group of people e.g: 23.5	Floating Point
A temperature in Celsius e.g: 45.7	Floating Point
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?*

The scope of a variable is where it is accessible in relation to the program. A variable can be declared with the use of special characters which change the scope of a variable. The five variable scops are; global, instance, local, constant and class.