

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

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
<i>appetizer_price</i>	10.30	12.40
<i>main_price</i>	34.00	41.00
<i>dessert_price</i>	8.50	9.80

Expected Result:

	First data set	Second data set
<i>Output:</i>	\$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	<i>appetizer _price</i>	<i>main _price</i>	<i>dessert _price</i>	<i>total _price</i>	<i>output</i>
First Pass	<i>Read the value of appetizer_price</i>	<i>10.30</i>				
	<i>Read the value of main_price</i>		<i>34.00</i>			
	<i>Read the value of dessert_price</i>			<i>8.50</i>		
	<i>Calculate the total_price</i>				<i>52.80</i>	
	<i>Output the unit (dollars)</i>					<i>\$</i>
	<i>Output the total_price</i>					<i>52.80</i>
Second Pass	<i>Read the value of appetizer_price</i>					
	<i>Read the value of main_price</i>					
	<i>Read the value of dessert_price</i>					
	<i>Calculate the total_price</i>					
	<i>Output the unit (dollars)</i>					
	<i>Output the total_price</i>					

2. Short Answer Questions:

3.

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)

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 `reads`

Then it `calculates`

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)?*

1: *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	Float/real/double
A temperature in Celsius e.g: 45.7	float
True or false e.g: <code>1 == 2</code>	false

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

1) Global

2) Local

See the lesson materials for help with these questions. You could also see:

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