

Check for Mistakes in this Word Problem: check-total

Directions: It is customary to tip 20% on a bill at a restaurant. Write a function that takes the total cost of the food and returns the new total including tip.

Contract and Purpose Statement

Every contract has three parts...

<code>;</code>	<code>check-total</code>	<code>:</code>	<code>number</code>	<code>→</code>	<code>number</code>
	<hr/>		<hr/>		<hr/>
	<i>function name</i>		<i>domain</i>		<i>range</i>
<code>;</code>	<code>Returns the total of a check with 20% of the cost added</code>				
	<hr/>				
	<i>what does the function do?</i>				

Examples

Write some examples, then circle and label what changes...

<code>(EXAMPLE (</code>	<code>(total 20)</code>	<code>)</code>	<code>(20 (+ (0.2 * 20) 20))</code>	<code>)</code>
	<hr/>	<hr/>	<hr/>	<hr/>
	<i>function name</i>	<i>input(s)</i>	<i>what the function produces</i>	
<code>(EXAMPLE (</code>	<code>(total 56.67)</code>	<code>)</code>		
	<hr/>	<hr/>		
	<i>function name</i>	<i>input(s)</i>		
	<code>(56.67 (+ (0.2 * 56.67) 56.67))</code>			
	<hr/>			
	<i>what the function produces</i>			

Definition

Write the definition, given variable names to all your input values...

<code>(define (</code>	<code>check-total</code>	<code>food-total</code>	<code>)</code>
	<hr/>	<hr/>	
	<i>function name</i>	<i>variables</i>	
	<code>(* (+ 0.2 food-total) food-total)</code>		
	<hr/>		
	<i>what the function does with those variables</i>		