

Check for Mistakes in this Word Problem: circle-area

Directions: Write a function that returns the area of a circle given its diameter.

Contract and Purpose Statement

Every contract has three parts ...

<code>;</code>	<code>circle-area</code>	<code>:</code>	<code>number</code>	<code>→</code>	<code>number</code>
	function name		domain		range
<code>;</code>	<code>Takes the diameter of a circle and calculates the area by multiplying</code>				
	what does the function do?				

Examples

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

<code>(EXAMPLE(</code>	<code>circle-area</code>	<code>10</code>	<code>)</code>	<code>(*</code>	<code>(sqr (/ 10 2))</code>	<code>pi)</code>	<code>)</code>
	function name	input(s)			what the function produces		
<code>(EXAMPLE(</code>	<code>circle-area</code>	<code>50</code>	<code>)</code>	<code>(*</code>	<code>(sqr (/ 50 2))</code>	<code>pi)</code>	<code>)</code>
	function name	input(s)			what the function produces		

Definition

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

<code>(define(</code>	<code>area</code>	<code>diameter</code>	<code>)</code>
	function name	variables	
	<code>(* (sqr diameter) pi)</code>		
	what the function does with those variables		