

Word Problem: red-shape

Directions: Write a function called *red-shape*, which takes in the name of a shape and draws that shape (solid and red). Add an else clause that produces a sensible output.

Contract and Purpose Statement

Every contract has three parts...

<code>;</code>	<code>red-shape</code>	<code>:</code>	<code>string</code>	<code>→</code>	<code>image</code>
	<hr/>		<hr/>		<hr/>
	<i>function name</i>		<i>domain</i>		<i>range</i>

<code>;</code>	<code>Create a solid red shape of the given kind</code>
	<hr/>
	<i>what does the function do?</i>

Examples

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

<code>(EXAMPLE(</code>	<code>red-shape</code>	<code>"circle"</code>	<code>)</code>	<code>(circle 50 "solid" "red")</code>	<code>)</code>
	<hr/>	<hr/>		<hr/>	
	<i>function name</i>	<i>input(s)</i>		<i>what the function produces</i>	

<code>(EXAMPLE(</code>	<code>red-shape</code>	<code>"triangle"</code>	<code>)</code>	<code>(triangle 50 "solid" "red")</code>	<code>)</code>
	<hr/>	<hr/>		<hr/>	
	<i>function name</i>	<i>input(s)</i>		<i>what the function produces</i>	

<code>(EXAMPLE(</code>	<code>red-shape</code>	<code>"rectangle"</code>	<code>)</code>	<code>(rectangle 99 9 "solid" "red")</code>	<code>)</code>
	<hr/>	<hr/>		<hr/>	
	<i>function name</i>	<i>input(s)</i>		<i>what the function produces</i>	

<code>(EXAMPLE(</code>	<code>red-shape</code>	<code>"star"</code>	<code>)</code>	<code>(triangle 50 "solid" "red")</code>	<code>)</code>
	<hr/>	<hr/>		<hr/>	
	<i>function name</i>	<i>input(s)</i>		<i>what the function produces</i>	

Definition

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

<code>(define(</code>	<code>red-shape</code>	<code>shape</code>	<code>)</code>
	<hr/>	<hr/>	
	<i>function name</i>	<i>variables</i>	

<code>(cond</code>	<hr/>
<code>[(string=? "circle" shape)</code>	<code>(circle 50 "solid" "red")</code>
<hr/>	<hr/>
<code>[(string=? "triangle" shape)</code>	<code>(triangle 50 "solid" "red")</code>
<hr/>	<hr/>
<code>[(string=? "rectangle" shape)</code>	<code>(rectangle 99 9 "solid" "red")</code>
<hr/>	<hr/>
<code>[(string=? "star" shape)</code>	<code>(star 50 "solid" "red")</code>
<hr/>	<hr/>
<code>[else</code>	<code>(text 20 "???" "red")</code>
<hr/>	<hr/>
	<code>]))</code>