

Word Problem: line-length

Directions: Write a function called 'line-length', which takes in two numbers and returns the *positive difference* between them. It should always subtract the smaller number from the bigger one, and if they are equal it should return zero.

Contract and Purpose Statement

Every contract has three parts...

<code>;</code>	<code>line-length</code>	<code>:</code>	<code>number number</code>	<code>→</code>	<code>number</code>
	<hr/>		<hr/>		<hr/>
	<i>function name</i>		<i>domain</i>		<i>range</i>

<code>;</code>	<code>Produce positive difference between two given numbers</code>
	<hr/>
	<i>what does the function do?</i>

Examples

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

<code>(EXAMPLE(</code>	<code>line-length</code>	<code>10 5</code>	<code>)</code>	<code>(- 10 5)</code>	<code>)</code>
	<hr/>	<hr/>		<hr/>	
	<i>function name</i>	<i>input(s)</i>		<i>what the function produces</i>	

<code>(EXAMPLE(</code>	<code>line-length</code>	<code>2 8</code>	<code>)</code>	<code>(- 8 2)</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>line-length</code>	<code>a b</code>	<code>)</code>
	<hr/>	<hr/>	
	<i>function name</i>	<i>variables</i>	

<code>(cond</code>	<hr/>
	<hr/>
<code>[(> a b)</code>	<code>(- a b)</code>
<hr/>	<hr/>
<code>[(< a b)</code>	<code>(- b a)</code>
<hr/>	<hr/>
	<code>]))</code>