

Word Problem: onscreen?

Directions: Use the Design Recipe to write a function 'onscreen?', which takes in the x-coordinate and checks to see if Sam is safe on the left AND safe on the right.

Contract and Purpose Statement

Every contract has three parts...

;	<u>onscreen?</u>	:	<u>number</u>	→	<u>boolean</u>
	<small>function name</small>		<small>domain</small>		<small>range</small>

;	<u>Sam is on the screen if his x-coordinate is safe on the left and safe</u>
	<small>what does the function do?</small>

Examples

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

(EXAMPLE (<u>onscreen?</u>	<u>10</u>)
	<small>function name</small>	<small>input(s)</small>	

	<u>(and (safe-left? 10) (safe-right? 10))</u>)
	<small>what the function produces</small>	

(EXAMPLE (<u>onscreen?</u>	<u>-15</u>)
	<small>function name</small>	<small>input(s)</small>	

	<u>(and (safe-left? -15) (safe-right? -15))</u>)
	<small>what the function produces</small>	

Definition

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

(define(<u>onscreen?</u>	<u>x</u>)
	<small>function name</small>	<small>variables</small>	

	<u>(and (safe-left? x) (safe-right? x))</u>)
	<small>what the function does with those variables</small>	