

Check for Mistakes in this Word Problem: scale-image

Directions: Write a function which takes an image and a string, representing what to scale the image by. The function should return a smaller image if the string is "smaller" and a bigger image if the string is "bigger".

Contract and Purpose Statement

Every contract has three parts...

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scale-image

image

string

→

image

function name

domain

range

;

Make the image bigger or smaller, depending on the given string

what does the function do?

Examples

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

(EXAMPLE(scale-image (circle 5 "solid" "red") "bigger")

function name

arguments

return value

(circle 10 "solid" "red")

what the function produces

(EXAMPLE(scale-triangle (triangle 20 "solid" "blue") "smaller")

function name

arguments

return value

(triangle 10 "solid" "blue")

what the function produces

Definition

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

(define(scale-image original-image scale-factor)

function name

variables

(cond

((string=? scale-factor "bigger") (scale 2 original-image))

((string=? scale-factor "smaller") (scale 0.5 original-image))

(else original-image)

)))