

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 do I want the function to produce?

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

function name

arguments

return value

(triangle 10 "solid" "blue")

what do I want the function to produce?

Definition

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

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

function name

variables

cond

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

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

else original-image

)))