

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...

;

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

)

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

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

(else

original-image

)))