

What's Wrong with these Recipes? 6

Directions: Write a function that 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...

examples:

scale-image ("circle(5, \"solid\", \"red\"), \"bigger\")
function name input(s)
is circle(10, \"solid\", \"red\")
function name what the function produces input(s)
scale-image (\"triangle(20, \"solid\", \"blue\"), \"smaller\")
function name what the function produces input(s)
ends triangle(10, \"solid\", \"blue\")
what the function produces

Definition

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

fun scale-image(original-image, scale-factor):
function name variable(s)

ask:

| scale-factor == \"bigger\" **then:** scale(2, original-image)

| scale-factor == \"smaller\"

| then: scale(0.5, original-image)
otherwise: original-image

end

end

Directions: Some states have different tax rates. New York is 8%, Pennsylvania is 3%, and Delaware is 0%. All other states are 5%. Write a function that takes in the price of an item and returns how much the tax will be on the item.

Contract and Purpose Statement

Every contract has three parts...

state-tax:: String -> Number
function name domain range

Given the state and an item's price, return the tax on that item

what does the function do?

Examples

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

examples:

tax (\"Delaware\") **is** 0.0 + price
function name input(s) what the function produces
tax (\"Georgia\") **is** 0.05 + price
function name input(s) what the function produces

end

Definition

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

fun state-tax(state price):
function name variable(s)

ask:

| state == "Pennsylvania" then: 0.03 * price

| state == "New York" then: 0.08 * price

| state == "Delaware" then: 0.0 * price

| otherwise: 0.05 * price

end

end