

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...

<code>;scale-image</code>	:	Image String	->	image
<i>function name</i>		<i>domain</i>		<i>range</i>

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 *input(s)*

(circle 10 "solid" "red") (triangle 20 "solid" "blue") "smaller")

what the function produces *input(s)*

(triangle 10 "solid" "blue"))

Definition

what the function produces

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

```
(define (scale-image original-image scale-factor)
  (cond
    [(string=? scale-factor "bigger") (scale 2 original-image)]
    [(string=? scale-factor "smaller")
     (scale 0.5 original-image)]
    [else original-image])
  )
```

what the function does with those variable(s)

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...

<code>; state-tax</code>	<code>:</code>	<code>String</code>	<code>-></code>	<code>Number</code>
<i>function name</i>		<i>domain</i>		<i>range</i>

what does the function do?

Examples

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

(EXAMPLE (tax Delaware) (+ 0.0 price))
function name *input(s)* *what the function produces*

(EXAMPLE (tax Georgia) (+ 0.05 price))
function name *input(s)* *what the function produces*

Definition

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

```
(define (state-tax state price)
  (cond
    [(string=? state "Pennsylvania") (* 0.03 price)]
```

<u>[(string=? state "New York")</u>	<u>(* 0.08 price)</u>	<u>]</u>
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<u>[(string=? state "Delaware")</u>	<u>(* 0.0 price)</u>	<u>]</u>
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<u>[else</u>	<u>(* 0.05 price)</u>	<u>]</u>
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))

what the function does with those variable(s)