

## 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>

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

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*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")
EXAMPLE (scaleImage (triangle 20 "solid" "blue") "smaller")

```

```
(triangle 10 "solid" "blue")
```

**Definition** (triangle 10 "solid" "blue") *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")
```

```
[else (scale 0.5 original-image) original-image]
```

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*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>-&gt;</code>	<code>Number</code>
<i>function name</i>		<i>domain</i>		<i>range</i>

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

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*what does the function do?*

## Examples

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

(EXAMPLE (tax Delaware ) (+ 0.0 price) )

<i>function name</i>	<i>input(s)</i>	<i>what the function produces</i>
(EXAMPLE (tax	Georgia	(+ 0.05 price)

<i>function name</i>	<i>input(s)</i>	<i>what the function produces</i>
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## 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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))

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*what the function does with those variable(s)*