

## Check for Mistakes in this Word Problem: state-tax

**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>string</code>	$\rightarrow$	<code>number</code>
<i>function name</i>	<i>domain</i>		<i>range</i>
<code>Given the state and an item's price, returns the tax on that item</code>			
<i>what does the function do?</i>			

### Examples

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

<code>(EXAMPLE ( tax Delaware))</code>	$) (+ 0.0 \text{ price})$	
<i>function name</i>	<i>input(s)</i>	<i>what the function produces</i>
<code>(EXAMPLE ( tax Georgia))</code>	$) (+ 0.05 \text{ price})$	
<i>function name</i>	<i>input(s)</i>	<i>what the function produces</i>

### Definition

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

```
(define( state-tax state price )
  (cond
    [(string=? state "Pennsylvania") (* 0.03 price)]
    [(string=? state "New York") (* 0.08 price)]
    [(string=? state "Delaware") (* 0.0 price)]
    [else: (* 0.05 price)]))
```