

## 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...

```
; state-tax : string → number
  function name      domain      range
; Given the state and an item's price, returns the the tax on that item
  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, given variable names to all your input values...

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