

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, giving 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) ]))
```