What's Wrong with these Recipes? 1

Directions : All students are given five (5) pencils at the beginning of the school year. Write a function called calc-pencils that takes in the number of students in the school and calculates the number of pencils needed for that school.

Contract and Purpose Statement

Every contract has three parts...

; `calc-pencils` :   `Number`   ->   `Number`
function name   *domain*   *range*

; Takes a number of students and gives the number of pencils
what does the function do?

Examples

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

(EXAMPLE (`calc-pencils`   `100`   ) `(* 100 5)`   )
        function name   *input(s)*   *what the function produces*

(EXAMPLE (`calc-pencils`   `40`   ) `(* 40 6)`   )
        function name   *input(s)*   *what the function produces*

Definition

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

(define (`calculate-pencils`   `p`   )
       function name   *variable(s)*

   `(* p 5)`   )
what the function does with those variable(s)

Directions : It is customary to tip 20% on a bill at a restaurant. Write a function that takes the total cost of the food and returns the new total including tip.

Contract and Purpose Statement

Every contract has three parts...

; `check-total`   :   `Number`   ->   `Number`
function name   *domain*   *range*

; Returns the total of a check with 20% of the cost added
what does the function do?

Examples

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

(EXAMPLE (`total`   `20`   ) `+ (0.2 * 20) 20`   )
        function name   *input(s)*   *what the function produces*

(EXAMPLE (`total`   `56.67`   ) `+ (0.2 * 56.67) 56.67`   )
        function name   *input(s)*   *what the function produces*

Definition

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

(define (`check-total`   `food-total`)
       function name   *variable(s)*

   `(* (+ 0.2 food-total) food-total)`   )
what the function does with those variable(s)