The Design Recipe

Directions : Write a function `moving` that takes in the days and number of miles driven and returns the cost of renting a truck. The truck is $55 per day and each driven mile is 15¢.

Contract and Purpose Statement

Every contract has three parts...

; moving   :   Number Number   ->   Number
  function name   *domain*   *range*

; Takes in a number of days and multiplies it by $45, then takes in a number of miles and multiplies it by
  $0.15, then adds the two products and returns the cost of moving

Examples
                                          what does the function do?

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

(EXAMPLE (moving   1 600   ) (+ (* 1 55) (* 600 0.15))   )
          function name   *input(s)*   *what the function produces*

(EXAMPLE (moving   3 1500   ) (+ (* 3 55) (* 1500 0.15))   )
          function name   *input(s)*   *what the function produces*

Definition

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

(define (moving   days miles)
         function name   *variable(s)*

  (+ (* days 55) (* miles 0.15))   )
                  what the function does with those variable(s)

Directions : Write a function `lawn-area` that takes in the length and width of a rectangular lawn and returns its area.

Contract and Purpose Statement

Every contract has three parts...

; lawn-area   :   Number Number   ->   Number
  function name   *domain*   *range*

; Takes in 2 numbers, length and width, and multiplies them and returns that value
                                    what does the function do?

Examples

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

(EXAMPLE (lawn-area   10 20   ) (* 10 20)   )
          function name   *input(s)*   *what the function produces*

(EXAMPLE (lawn-area   100 300   ) (* 100 300)   )
          function name   *input(s)*   *what the function produces*

Definition

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

(define (lawn-area   length width)
         function name   *variable(s)*

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