

# The Design Recipe

**Directions:** Write a function `split-tab` that takes in a cost and the number of people sharing the bill and splits the cost equally.

## Contract and Purpose Statement

Every contract has three parts...

`; split-tab` : Number Number  $\rightarrow$  Number  
function name domain range

; Takes in a cost and a number of people and divides the cost by the number of people, returning the value.

## Examples

what does the function do?

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

(EXAMPLE (`split-tab` 200 10) (`/` 200 10))  
function name input(s) what the function produces

(EXAMPLE (`split-tab` 500 5) (`/` 500 5))  
function name input(s) what the function produces

## Definition

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

(define (`split-tab` cost people)  
function name variable(s)  
(`/` cost people)  
what the function does with those variable(s))

**Directions:** Write a function `num-cube` that takes in a number and returns the cube of that number.

## Contract and Purpose Statement

Every contract has three parts...

`; num-cube` : Number  $\rightarrow$  Number  
function name domain range

; Takes in a number, cubes it and returns that value.

## Examples

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

(EXAMPLE (`num-cube` 1) (`*` 1 (`*` 1 1)))  
function name input(s) what the function produces

(EXAMPLE (`num-cube` 3) (`*` 3 (`*` 3 3)))  
function name input(s) what the function produces

## Definition

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

(define (`num-cube` n)  
function name variable(s)  
(`*` n (`*` n n))  
what the function does with those variable(s))