

## Check for Mistakes in this Word Problem: circle-area

**Directions:** Write a function that returns the area of a circle given its diameter.

### Contract and Purpose Statement

Every contract has three parts...

; circle-area : number → number  
*function name* *domain* *range*

; Takes the diameter of a circle and calculates the area by multiplying  
*what does the function do?*

### Examples

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

(EXAMPLE ( circle-area 10 ) (\* (sqr (/ 10 2)) pi) )  
*function name* *input(s)* *what the function produces*

(EXAMPLE ( circle-area 50 ) (\* (sqr (/ 50 2)) pi) )  
*function name* *input(s)* *what the function produces*

### Definition

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

(define ( area diameter )  
*function name* *variables*

(\* (sqr diameter) pi)  
*what the function does with those variables*