

## 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 the square of the radius  
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