

# Word Problem: collide?

**Directions:** Use the Design Recipe to write a function `collide?`, which takes in the coordinates of two objects and checks if they are close enough to collide.

## Contract and Purpose Statement

Every contract has three parts...

`collide?` : Number Number Number Number -> Boolean  
*function name* *domain* *range*

`Takes in two pairs of x/y coordinates and uses the distance between them to check for collision`  
*what does the function do?*

## Examples

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

(EXAMPLE (`collide?` 0 0 3 4) (`< (distance 0 0 3 4) 50`) )  
*function name* *input(s)* *what the function produces*

(EXAMPLE (`collide?` 25 50 250 480) (`< (distance 25 50 250 480) 50`) )  
*function name* *input(s)* *what the function produces*

## Definition

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

(define (`collide?` x1 y1 x2 y2)  
*function name* *variable(s)*  
(`< (distance x1 y1 x2 y2) 50`)  
*what the function does with those variable(s)*