## Word Problem: distance

**Directions:** Use the Design Recipe to write a function distance, which takes in FOUR inputs: px and py (the x- and y-coordinate of the Player) and cx and cy (the x- and y-coordinates of another character). coordinates of two objects and produces the distance between them in pixels.

Contract and Purpose Staten	nent		
Every contract has three parts			
; distance :	Number Number	Number Number -> Number	
function name	domain	n range	
; Takes in two sets of (x,y) co	pordinates and produces the	ne distance between them	
what does the function do?			
Examples			
Write some examples, then circle and la	pel what changes		
		(sqrt (+ (sqr (- 4 0)) (sqr (- 0	
(EXAMPLE (distance	0 4 3 0 )	3))))	)
function name	input(s)	(sqrt (+ (sqrwhlitthe Betio 1))rdducksqr (- 24	-
(EXAMPLE (distance	1 30 32 24 )	32))))	
Definition function name	input(s)	what the function produces	
Write the definition, giving variable nam	es to all your input values		
(define (distance	x1 y1 x2 y2)		
function name	variable(s)		
(sqrt (+ (sqr (- x2	x1)) (sqr (- y2 y1	.))))	

what the function does with those variable(s)