

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 Statement

Every contract has three parts...

distance:: Number, Number, Number, Number -> Number
function name *domain* *range*

Takes in two sets of (x,y) coordinates and produces the distance between them

what does the function do?

Examples

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

examples:

distance (0, 4, 3, 0) is num-sqrt(num-sqr(4 - 0) + num-sqr(0 - 3))
function name *input(s)* *what the function produces*

distance (1, 30, 32, 24) is num-sqrt(num-sqr(30 - 1) + num-sqr(24 - 32))
function name *input(s)* *what the function produces*

Definition

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

fun distance(x1, y1, x2, y2):
function name *variable(s)*

num-sqrt(num-sqr(x2 - x1) + num-sqr(y2 - y1))
what the function does with those variable(s)

end