

Word Problem: distance

Write a function distance, which takes *FOUR* inputs:

- ☐ *px*: The x-coordinate of the player
- ☐ *py*: The y-coordinate of the player
- ☐ *cx*: The x-coordinate of another game character
- ☐ *cy*: The y-coordinate of another game character

It should return the distance between the two, using the Distance formula:

$$\text{Distance}^2 = (px - cx)^2 + (py - cy)^2$$

Contract+Purpose Statement

distance :: Number, Number, Number, Number -> Number
Consumes the coordinates of 2 characters: px, py, cx, and cy, produces
the distance between them using the distance formula

Give Examples

Write examples of your function in action

examples:

px	py	cx	cy
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distance (4, 2, 0, 5) is

num-sqrt(num-sqr(4 - 0) + num-sqr(2 - 5))

px	py	cx	cy
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distance (80, 33, 6, 50) is

num-sqrt(num-sqr(80 - 6) + num-sqr(33 - 50))

end

Function

fun distance (px, py, cx, cy) :

num-sqrt(num-sqr(px - cx) + num-sqr(py - cy))

end