

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:

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

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