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Thread: [help with recursion?](#)

paradox_ - March 1, 2017, 5:01 pm

i need some help with shortest path recursion.

a recursive function is given a and b (makes a rectangle) and the function returns how many different ways the character can move from tile to tile to reach the end goal.

what i'm having trouble with:

- the shortest path is always $a+b - 1$. how is this important?
- how would my recursion function know if a certain path is already counted?
- how does the recursion function keep track of how many different paths if it has to change the value of a and b to get to the end goal?

i'm probably looking at this wrong but if someone can point me to the right direction i can do all the work. i just don't understand what the relationships are.

Hash G. - March 1, 2017, 8:05 pm

If you don't have a defined prototype and work with a language which have some concepts of abstraction, you could just add a variable to the prototype and store paths there.

If you do have a defined prototype, I think I'm either missing something or I lack information to help you.

severos - March 1, 2017, 10:19 pm

I'll suggest you take a look at recursive descent algorithm, it's used in parsing code, however same concept can be used for various stuff.

Also you could use graphs and their algorithms too bad I don't remember any right now to name them.