

Caparison of these two solutions:

1. (stack)

Difficulty:

It is harder to come up with at first, but it is easier to implement in the real function design.

Although there is a complete header file to lead me to just fill up all the function remain, it is still hard.

Time:

It is usually faster to use iterator than recursion, since recursion will use a lot of repetitive calculation.

2. (Recursive)

Difficulty:

It is much easier to implement in real design, because I don't need to think about the stack size and pointer anymore. Also, it need to think about the overflow problem when recurse too much.

Time: It is usually slower to use recursion than iteration , since recursion will use a lot of repetitive calculation. And it will also consider about the memory problem.