

— Day 1: Not Quite Lisp —

Santa was hoping for a white Christmas, but his weather machine’s “snow” function is powered by stars, and he’s fresh out! To save Christmas, he needs you to collect **fifty stars** by December 25th.

Collect stars by helping Santa solve puzzles. Two puzzles will be made available on each day in the Advent calendar; the second puzzle is unlocked when you complete the first. Each puzzle grants **one star**. Good luck!

Here’s an easy puzzle to warm you up.

Santa is trying to deliver presents in a large apartment building, but he can’t find the right floor - the directions he got are a little confusing. He starts on the ground floor (floor 0) and then follows the instructions one character at a time.

An opening parenthesis, (, means he should go up one floor, and a closing parenthesis, ), means he should go down one floor.

The apartment building is very tall, and the basement is very deep; he will never find the top or bottom floors.

For example:

- (()) and ()() both result in floor 0.
- ((( and (()() both result in floor 3.
- ))(((( also results in floor 3.
- ()) and ))( both result in floor -1 (the first basement level).
- ))) and )()() both result in floor -3.

To what floor do the instructions take Santa?

The first half of this puzzle is complete! It provides one gold star: \*

— Part Two —

Now, given the same instructions, find the position of the first character that causes him to enter the basement (floor -1). The first character in the instructions has position 1, the second character has position 2, and so on.

For example:

- ) causes him to enter the basement at character position 1.
- ()() causes him to enter the basement at character position 5.

What is the position of the character that causes Santa to first enter the basement?