

120. Triangle

Difficulty : Medium

<https://leetcode.com/problems/triangle>

Given a triangle array, return *the minimum path sum from top to bottom*.

For each step, you may move to an adjacent number of the row below. More formally, if you are on index i on the current row, you may move to either index i or index $i + 1$ on the next row.

Example 1:

Input: triangle = [[2],[3,4],[6,5,7],[4,1,8,3]]

Output: 11

Explanation: The triangle looks like:

```
  2
 3 4
6 5 7
4 1 8 3
```

The minimum path sum from top to bottom is $2 + 3 + 5 + 1 = 11$ (underlined above).

Example 2:

Input: triangle = [[-10]]

Output: -10

Constraints:

- $1 \leq \text{triangle.length} \leq 200$
- $\text{triangle}[0].\text{length} == 1$
- $\text{triangle}[i].\text{length} == \text{triangle}[i - 1].\text{length} + 1$
- $-10^4 \leq \text{triangle}[i][j] \leq 10^4$

Follow up: Could you do this using only $O(n)$ extra space, where n is the total number of rows in the triangle?