Submissions

□ Discuss (274)

276. Paint Fence

■ Description

Medium ☆ 1020 ♀ 339 ♡ Add to List ௴ Share

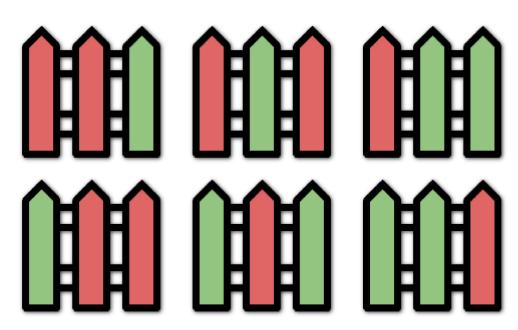
Solution

You are painting a fence of n posts with k different colors. You must paint the posts following these rules:

- Every post must be painted **exactly one** color.
- There **cannot** be three or more **consecutive** posts with the same color.

Given the two integers n and k, return the **number of ways** you can paint the fence.

Example 1:



Input: n = 3, k = 2

Output: 6

Explanation: All the possibilities are shown.

Note that painting all the posts red or all the posts green is invalid because

there cannot be three posts in a row with the same color.

Example 2:

Input: n = 1, k = 1

Output: 1

Example 3:

i C+

1

2

4

5 6