

C Programming Basics – Spot Question

A person, planning to climb a staircase with 'n' stairs from ground, is capable of skipping a maximum of 2 stairs at a time (i.e. he/she either can climb one stair at a time or can skip a stair or two). Implement a function (numWaysToClimbUp) to compute the number of possible ways the person can climb up the staircase.

Function Prototype: int numWaysToClimbUp(int n)

Sample:

input: 0, output: 1 (ground)

input: 1, output: 1 (ground → 1)

input: 2, output: 2 (ground → 1 → 2 / ground → 2)

input: 3, output: 4 (ground → 1 → 2 → 3 / ground → 2 → 3 / ground → 1 → 3 / ground → 3)

input: 10, output: 274