

## Problem on Recursion: Strategies for Climbing Staircase

You are asked to program this method:

```
public HashSet<ArrayList<Integer>> climbStrategies(int h, int n)
```

The return value enumerates the set of all possible ways for climbing a stair of height  $h$ , while each climb is up to  $n$  steps.

**Assumptions**:  $n \leq h$ , each climb takes at least 1 step

e.g., `climbStrategies(4, 2)` returns the following set enumerating the 5 ways for climbing a stair of height 4 and each climb takes up to 2 steps.

```
{ [1, 1, 1, 1],  
  [1, 1, 2],  
  [1, 2, 1],  
  [2, 1, 1],  
  [2, 2] }
```