Problem 2 How many different southeasterly paths are there from the Peripatetic Society to the headquarters of Mathemaddicts Anonymous?

Solution Recursion is the key: Calculus can walk to an intersection from the north or west, and the resulting paths are different. Thus, the number of paths to an intersection is the *sum of the numbers of paths to the neighboring north and west intersections*. Computing from top left to bottom right as shown below, we find that there are 282 different paths Calculus can take. Note the close relationship with Pascal's triangle (shaded).