College of the Holy Cross, Spring Semester, 2011
Department of Mathematics and Computer Science
Problem of the Week #2: February 7, 2011

Problem 2   The World Offices of the Peripatetic Society are located at the intersection of 13th Street and Avenue A, while the headquarters of Mathemaddicts Anonymous are at 6th and F. Professor Calculus has been invited to give lectures at these associations on the same afternoon. If he leaves the Peripatetic Society after his first lecture and walks toward Math Anon (that is, south and east), he'll arrive just in time for his second lecture.

The city of Egg York has a fenced park in the middle, which Calculus cannot walk through. How many different paths can he take to get to his second lecture on time? Solutions must include justification to be considered complete.

Suggestion   Don't try to sketch all the paths!