How do I walk to thee? Let me count the ways

Date Tuesday, October 12

 $Time~4~\mathrm{pm}$

Location 303 Mudd

Abstract: Suppose that you are in Manhattan at the corner of 0th Street and 0th Avenue and your lover is at the corner of Xth St. and Yth Ave. , in how many ways can you walk to him?, if you want to get there as soon as possible. This is an easy exercise if you avoid Broadway. But if Broadway is allowed, or you are drunk, or Manhattan is d-dimensional $(d_{\dot{c}}2)$, then you better use a computer, not just to get NUMERICAL answers (for numeric X and Y), but even to get SYMBOLIC answers in terms of the symbols X and Y.