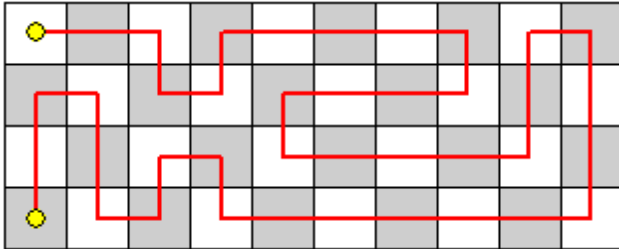# Counting Tours on a Grid

Let T(*x,y*) be the number of tours over a $X \times Y$ grid such that:
1. the tour starts in the top left square,
2. the tour consists of moves that are up, down, left, or right one square,
3. the tour visits each square exactly once, and
4. the tour ends in the bottom left square.

The following diagram shows an example tour over a 10 × 4 board:

It's easy to see, for example, that T(2,2) = 1, T(3,3) = 2, T(4,3) = 0, and T(3,4) = 4.

Write a program to calculate T(10,4). The program should be non-interactive and run as a single-line command which takes two command-line arguments, width and height, in that order.

Let us know the value that it computes, its running time, and the kind of machine on which you ran it. Attach your source code.