Lattice paths

Starting in the top left corner of a $2 \times 2$ grid, and only being able to move to the right and down, there are exactly 6 routes to the bottom right corner.

![Diagram of routes](image)

Write a program that reads two non-negative integers, $n$ and $m$, and writes the number of routes for an $n \times m$ grid.

*(ProjectEuler #15)*