

# Concave quadrilaterals (concave)

Given is a grid consisting of  $r$  rows by  $c$  columns of grid points.

## Task

Count the number of ways in which it is possible to draw a strictly concave quadrilateral with vertices in four of the given grid points.

(A quadrilateral is strictly concave if and only if one of its two diagonals contains a point that is strictly outside the quadrilateral. Shifted and/or rotated copies of the same quadrilateral count as distinct ways of drawing it.)

## Input specification

The input has a single line with the two integers  $r$  and  $c$ .

You may assume that the total number of grid points is at most 3000.

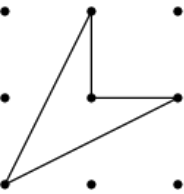
## Output specification

Output a single line with a single integer: the number of concave quadrilaterals with vertices on the grid.

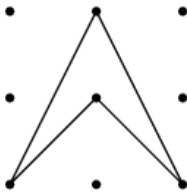
## Examples

input	output
2 10	0

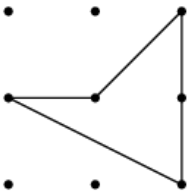
input	output
3 3	24



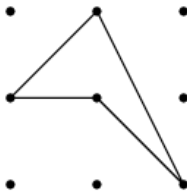
4 rotations



4 rotations



8 rotations  
and reflections



8 rotations  
and reflections