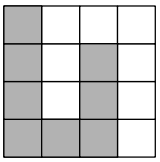
Problem J. Separable Divisions

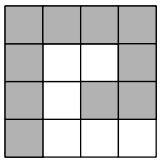
Input file:	`separable.in`
Output file:	`separable.out`
Time limit:	2 seconds
Memory limit:	256 megabytes

Consider a rectangle that consists of $m \times n$ unit squares. We can divide it into two parts by coloring some squares white and other squares black, so that both white and black parts are connected (the set of squares is called connected if one can walk from any square in the set to any other by stepping from a square to a square that shares an edge with it).

Let us call such division *separable* if one can move white and black parts as far apart from each other as desired, by continuously moving them without overlapping. For example, the division on the figure (a) is separable, but the division on the figure (b) is not.



(a) Separable division.



(b) Nonseparable division.

Find the number of separable divisions of the rectangle.

Input

Input file contains m and n ($1 \le m, n \le 50$).

Output

Output one number — the number of separable divisions of an $m \times n$ rectangle.

Example

separable.in	separable.out
4 4	470