D. Little Elephant and Triangle

time limit per test: 3 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

The Little Elephant is playing with the Cartesian coordinates' system. Most of all he likes playing with integer points. The Little Elephant defines an integer point as a pair of integers $(x; y)$, such that $0 \le x \le w$ and $0 \le y \le h$. Thus, the Little Elephant knows only $(w + 1)\cdot(h + 1)$ distinct integer points.

The Little Elephant wants to paint a triangle with vertexes at integer points, the triangle's area must be a positive integer. For that, he needs to find the number of groups of three points that form such triangle. At that, the order of points in a group matters, that is, the group of three points $(0;0)$, $(0;2)$, $(2;2)$ isn't equal to the group $(0;2)$, $(0;0)$, $(2;2)$.

Help the Little Elephant to find the number of groups of three integer points that form a nondegenerate triangle with integer area.

Input

A single line contains two integers w and h $(1 \le w, h \le 4000)$.

Output

In a single output line print an integer — the remainder of dividing the answer to the problem by 1000000007 $(10^9 + 7)$.

Examples

input
2 1

output
36

input
2 2

output
240