C. Dreamoon and Sums

time limit per test: 1.5 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Dreamoon loves summing up something for no reason. One day he obtains two integers a and b occasionally. He wants to calculate the sum of all *nice* integers. Positive integer x is called *nice* if and , where k is some **integer** number in range $[1, a]$.

By we denote the *quotient* of integer division of x and y. By we denote the *remainder* of integer division of x and y. You can read more about these operations here: http://goo.gl/AcsXhT.

The answer may be large, so please print its remainder modulo $1\,000\,000\,007$ ($10^9 + 7$). Can you compute it faster than Dreamoon?

Input

The single line of the input contains two integers a, b ($1 \le a, b \le 10^7$).

Output

Print a single integer representing the answer modulo $1\,000\,000\,007$ ($10^9 + 7$).

Examples

input
1 1
output
0

input
2 2
output
8

Note

For the first sample, there are no nice integers because is always zero.

For the second sample, the set of nice integers is $\{3, 5\}$.