Math Exam

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	256 megabytes

There are many integer sequences in the world, and your mission is to find how many sequences are good.

An integer sequence a_i of length n is good if and only if all of these conditions holds:

- $\forall i \in [1, n], 4S_i = {a_i}^2 + 2a_i + 1$.
- $\forall i \in [1, n], |a_i| \leq m$.

Where $S_i = \sum_{j=1}^{i} a_j$.

You will be given n and m, and it is guaranteed that m is **odd**.

Since the answer may be very large, you should calculate it modulo 998 244 353.

Input

The only line contains two integers n and m ($1 \leq n \leq 10^7$, $1 \leq m \leq 2n$, m is odd).

Output

Output a single integer — the number of good sequences meeting the constraints, modulo 998 244 353.

Examples

standard input	standard output
9 13	124
500 999	195157058