

40th Petrozavodsk Programming Camp, Day 5: Almost Retired Dandelion Contest ICPC Training Camp: Common Contest 2, Wednesday, February 3, 2021



Problem C. Multiple?

Input file: standard input
Output file: standard output

Time limit: 4 seconds Memory limit: 256 mebibytes

Given an integer n, the sequence is called *good* if its elements are from [1, n] and all its non-empty subsequences (not necessarily continuous) have sums not divisible by n.

Calculate the number of good sequences of length n-k modulo 998 244 353.

Input

The only line of input contains two integers n and k $(1 \le k \le n/4 < n < 998244353)$.

Output

Print one number — the answer to the problem.

Examples

| standard input | standard output |
|-----------------|-----------------|
| 4 1 | 2 |
| 9 2 | 48 |
| 22222222 222222 | 851798824 |