

Try to solve the following problems by implementing their solutions with your favourite programming language.

Print the divisors of a number in $O(n * \sqrt{n})$ complexity (n is the number)

Print the prime factorization of a number in $O(n * \log(n))$ complexity (n is the number)

Given an integer array of size n, print the product of its elements modulo 998244353

Print 1000! (factorial) Modulo 998244353

Print $C(10, 5)$ (print 10 choose 5 binomial coefficient).