

Problem:

Find all prime numbers less than a given number

Input:

Integer n

Output:

All prime numbers < n, number of prime numbers < n

Steps:

1. Ask for n, echo
2. If n positive
 - a. Initialize an a boolean list of length n consisting of ones
 - b. For all integers i less than $\lfloor \sqrt{n} \rfloor$
 - i. If list(i) is one
 - All ones in the list that have an integer multiple index of i (less than n) are switched to zero
 - c. Print all the index values that have a 1 in their position = prime numbers
 - d. Count all such indices = Number of prime numbers
3. If n not positive, go to step 1