

O. Five in One

time limit per test: 1 second🕒
memory limit per test: 256 megabytes
input: standard input
output: standard output

Given an array A of size N . write five functions that do the following:

1. Get the value of the **maximum** number in the array.
2. Get the value of the **minimum** number in the array.
3. Count the **prime numbers** in the array.
4. Count the **palindrome numbers** in the array.
5. Get the number that has the **maximum number of divisors**, and if there are more than one number that has the maximum number of divisors , **print the maximum of them**.

Note:

*A **palindrome number** is a number that reads the same forward or backward.

For example: 12321, 101 are **palindrome numbers**, while 1201, 221 are **not**.

*A **prime** number is a number that is greater than 1 and has only two factors which are 1 and **itself**.

In other words : **prime number divisible only by 1 and itself**.

Be careful that 1 is not prime .

The first few **prime** numbers are

2357111317

192329313741

434753596167

717379838997

Input

First line will contain a number N ($1 \leq N \leq 100$) number of elements.

Second line will contain N numbers ($1 \leq A_i \leq 100$).

Output

Print five lines as following:

- "The maximum number : **X** " where **X** is the maximum number.
- "The minimum number : **X** " where **X** is the minimum number.
- "The number of prime numbers : **X** " where **X** is the number of prime numbers.
- "The number of palindrome numbers : **X** " where **X** is the number of palindrome numbers.
- "The number that has the maximum number of divisors : **X** " where **X** is the number that has the maximum number of divisors.

Don't print any extra spaces.

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→ About Group



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- Contest #2
- Sheet #2 (Loops)
- Contest #1
- Sheet #1 (Data type - Conditions)

Sheet #5 (Functions)

Finished

Practice



→ About Time Scaling

This contest uses time limits scaling policy (depending on a programming language). The system automatically adjusts time limits by the following multipliers for some languages. Despite scaling (adjustment), the time limit cannot be more than 30 seconds. Read the details by the [link](#).



Examples

input

Copy

4
1 2 5 8

output

Copy

The maximum number : 8
The minimum number : 1
The number of prime numbers : 2
The number of palindrome numbers : 4
The number that has the maximum number of divisors : 8

input

Copy

5
8 2 14 1 83

output

Copy

The maximum number : 83
The minimum number : 1
The number of prime numbers : 2
The number of palindrome numbers : 3
The number that has the maximum number of divisors : 14

Note

In the second example :

the minimum number is **1**.

the maximum number is **83** .

the prime numbers are **[2,83]**.

the palindrome numbers are **[1,2,8]**.

1 has one divisor **[1]**, **2** has two divisors are **[1,2]**,

8 has four divisors **[1,2,4,8]**, **14** has also four divisors **[1,2,7,14]**, and **83** has two divisors **[1,83]**.

then **8** and **14** have the **maximum number of divisors** so we print the maximum one **14**.

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Submit?

Language: GNU G++20 13.2 (64 bit, win

Choose file: Choose File No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
171744947	Sep/11/2022 21:25	Accepted
171744049	Sep/11/2022 21:15	Wrong answer on test 3
171741460	Sep/11/2022 20:48	Accepted
171739760	Sep/11/2022 20:30	Wrong answer on test 8
171739568	Sep/11/2022 20:28	Wrong answer on test 8
171738199	Sep/11/2022 20:13	Wrong answer on test 3
171737912	Sep/11/2022 20:10	Wrong answer on test 5
171737729	Sep/11/2022 20:08	Wrong answer on test 3
171737418	Sep/11/2022 20:04	Wrong answer on test 3
171737110	Sep/11/2022 20:01	Wrong answer on test 3

→ Contest materials

Statements in PDF (en)

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