TCPC Assiut University Community

Newcomers Training , Do Your Best

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HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

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

2 3 5 7 11 13 17
19 23 29 31 37 41
43 47 53 59 61 67
71 73 79 83 89 97

Input

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

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

Output

Print five lines as following:

"The maximum number : **X** " where **X** is the maximum number.

"The minimum number : \boldsymbol{X} " where \boldsymbol{X} is the minimum number.

"The number of prime numbers : **X** " where **X** is the number of prime numbers.

"The number of palindrome numbers : \boldsymbol{X} " where \boldsymbol{X} is the number of palindrome numbers.

"The number that has the maximum number of divisors : \mathbf{X} " where \mathbf{X} is the number that has the maximum number of divisors.

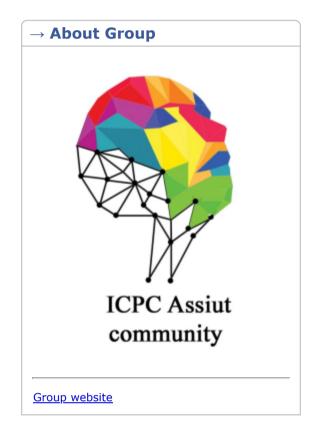
Don't print any extra spaces.

<u>Assiut University Training - Newcomers</u>

Public

Participant





→ **Group Contests**



- Sheet #10 (General Hard)
- Sheet #9 (General medium)
- Sheet #8 (General easy)
- Sheet #7 (Recursion)
- Sheet #6 (Math Geometry)
- Sheet #5 (Functions)
- Sheet #4 (Strings)
- Contest #3.1
- Sheet #3 (Arrays)
- 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 <u>link</u>.

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

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],

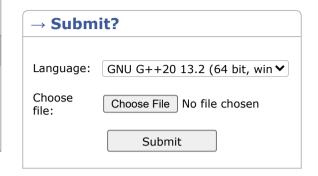
8 has four divisors [1,2,4,8],14 has also four divisors [1,2,7,14],and 83 has two divisors [1,83].

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



→ 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
<u>171738199</u>	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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• Statements in PDF (en)

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The only programming contests Web 2.0 platform
Server time: May/10/2024 00:02:42 (k1).
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