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.

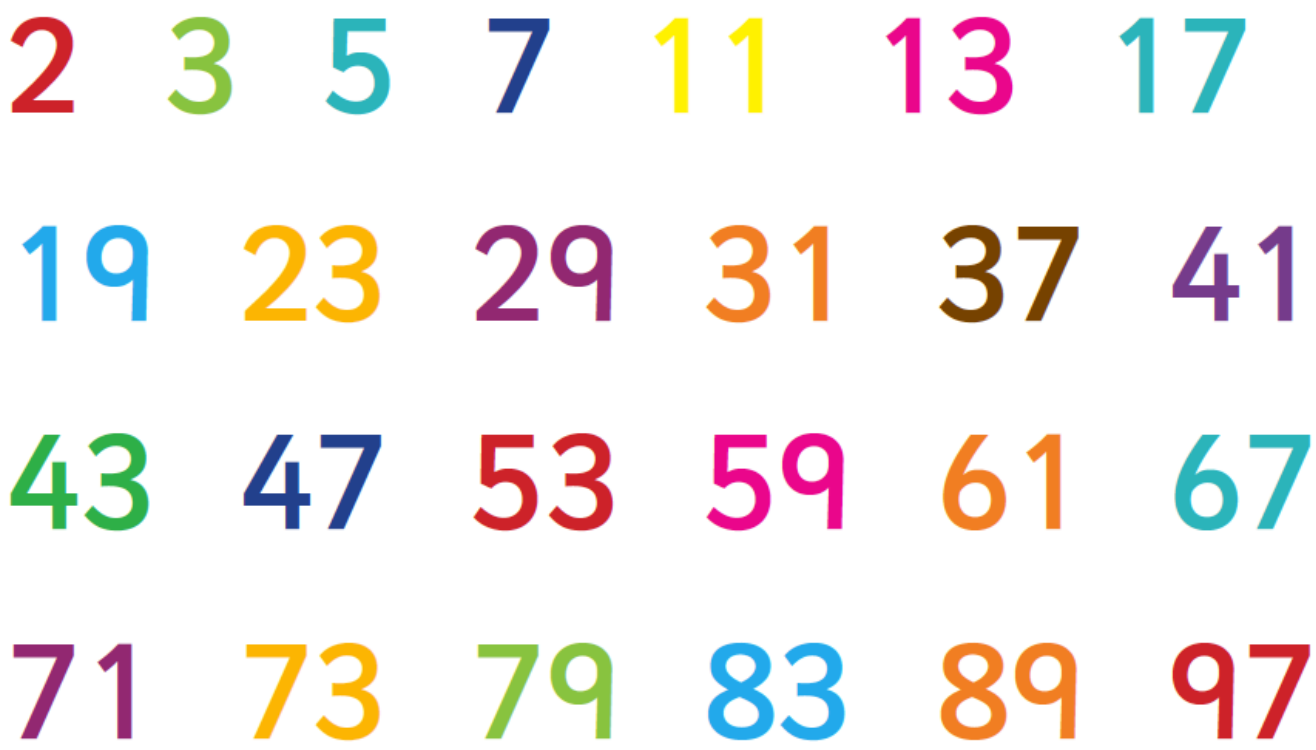
For example: 12321, **101** are **palindrome numbers**, while **1201**, **221** are **not**.

*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



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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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**.