Five in One

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

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

$$2 \quad 3 \quad 5 \quad 7 \quad 11$$

$$19 \quad 23 \quad 29 \quad 31$$

$$43 \quad 47 \quad 53 \quad 59$$

$$71 \quad 73 \quad 79 \quad 83$$

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.

Examples

standard input	standard output
4 1 2 5 8	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
5 8 2 14 1 83	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**.