Our dear Sultan is visiting a country where there are n different types of coin. He wants to collect as many different types of coin as you can. Now if he wants to withdraw X amount of money from a Bank, the Bank will give him this money using following algorithm.

```
withdraw(X){
    if( X == 0) return;
    Let Y be the highest valued coin that does not exceed X.
    Give the customer Y valued coin.
    withdraw(X-Y);
}
```

Now Sultan can withdraw any amount of money from the Bank. He should maximize the number of different coins that he can collect in a single withdrawal.

Input

First line of the input contains T the number of test cases. Each of the test cases starts with n $(1 \leq n \leq 1000)$, the number of different types of coin. Next line contains n integers C_1, C_2, ..., C_n the value of each coin type. $C_1 < C_2 < C_3 < \ldots < C_n < 1000000000$. C_1 equals to 1.

Output

For each test case output one line denoting the maximum number of coins that Sultan can collect in a single withdrawal. He can withdraw infinite amount of money from the Bank.

Sample Input

```
2
6
1 2 4 8 16 32
6
1 3 6 8 15 20
```

Sample Output

```
6
4
```