

In a lazy afternoon the great Froogrammer came to realize that, to make his future plans successful he needs a lot of money. To make some quick cash he decided to go to the casino to play a game. The rule of the game is the following:

- The player is given  $N$  cards. Each card has a **non-negative integer** printed in it.
- The player will choose some cards from the given cards.
- The bitwise **AND** value of the chosen cards will be calculated and the player will be given the same amount of money. (i.e. equal to the bitwise **AND** value of the chosen cards).

After getting  $N$  cards Froogrammer was in a fix as usual. He could not decide which of the cards to choose. So he called you to help him. Please tell him the **maximum amount** he can win from these set of cards. If you are confused about bitwise **AND** operation see the notes section below.

## Input

The first line of input will contain the number of test cases  $T$  ( $T < 101$ ). Then there will be  $T$  test cases. Each of the test cases will start with an integer  $N$  ( $0 < N < 31$ ) denoting the number of cards. Then the following line will contain  $N$  non-negative integers  $C_i$  ( $0 \leq C_i < 2^{31}$ ) separated by space, denoting the numbers printed on each of the cards.

## Output

For each test case print one line of output denoting the case number and the maximum amount Froogrammer can win. See sample output for exact format.

### Note:

A **bitwise AND** takes two binary representations of equal length and performs the logical **AND** operation on each pair of corresponding bits. The resulting bit of a position is 1 if the bit at that position of both numbers is 1; otherwise, that bit is 0.

For example:

```
    0101 (decimal 5)
AND 0011 (decimal 3)
= 0001 (decimal 1)
```

## Sample Input

```
1
2
0 1
```

## Sample Output

```
Case 1: 1
```