

# Guess The Maximum

A cat and a rabbit are playing a simple number guessing game. The cat chose two different positive integers  $X$  and  $Y$ . He then told the rabbit several numbers. One of those numbers was  $X + Y$  and another was  $X - Y$ . The others were simply made up.

The rabbit thinks the cat prefers large numbers. Given  $n$  numbers the cat told the rabbit, print the largest possible value of  $X * Y$

## Input

Input starts with an integer  $T$  ( $\leq 200$ ), denoting the number of test cases.

Each case starts with a line containing one integer  $N$  ( $2 \leq N \leq 50$ ). Next line contains  $N$  integers. Each integer will be between 1 and 1000.

## Output

For each case, print a line containing the largest possible value of  $X * Y$ .

## Example

**Input:**

```
2
3
1 4 5
4
1 4 5 8
```

**Output:**

```
6
12
```

**Explanation of the second case:** Possible pairs  $(X, Y)$  are  $(3, 2)$  and  $(6, 2)$ . The values of  $X * Y$  are 6 and 12, respectively, and the largest is 12.