**Maximum product of two numbers**

[array](http://www.practice.geeksforgeeks.org/tag-page.php?tag=array&isCmp=0)[sorting](http://www.practice.geeksforgeeks.org/tag-page.php?tag=sorting&isCmp=0)[Amazon](http://www.practice.geeksforgeeks.org/tag-page.php?tag=Amazon&isCmp=1)

Given an array with all elements greater than or equal to zero.Return the maximum product of two numbers possible.

**Input:**

The first line of input contains an integer T denoting the number of test cases.  
The first line of each test case is N, N is size of array.  
The second line of each test case contains N input A[i].  
  
**Output:**

Print the maximum product of two numbers possible.  
  
**Constraints:**

1 ≤ T ≤ 20  
1 ≤ N ≤ 50  
0 ≤ A[i] ≤ 1000  
  
**Example:**

Input  
1  
5  
1 100 42 4 23

Output  
4200

\*\*For More Examples Use Expected Output\*\*

<http://www.practice.geeksforgeeks.org/problem-page.php?pid=453>

#include <iostream>

#include <stdio.h>

#include <math.h>

#include <vector>

using namespace std;

int main() {

    int T;

    scanf("%d", &T);

    std::string s;

    while(T--) {

        int N;

        scanf("%d", &N);

        int arr[N];

        for(int i =0; i < N; i++) {

            scanf("%d", &arr[i]);

        }

        int max\_prod = 0;

        for(int i =0; i < N; i++) {

            for(int j = i+ 1; j<N; j++){

                max\_prod = std::max(max\_prod, arr[i] \* arr[j]);

            }

        }

        printf("%d", max\_prod);

        printf("**\n**");

    }

  system("pause");

 return 0;

}