

```
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
    public static void main (String[] args) throws java.lang.Exception
    {
        Scanner scan = new Scanner(System.in);
        int t = scan.nextInt();
        while(t > 0){
            int n = scan.nextInt();
            long nums[] = new long[n];
            for(int i=0; i<n; i++){
                nums[i] = scan.nextLong();
            }
            Arrays.sort(nums);
            long res = (nums[n-1] - nums[0])*nums[n-2];
            System.out.println(res);
            t--;
        }
    }
}
```