

# Dating Rishi

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Its been Monday and [Rishi](#) Dude is planning to select a girl to date for this week. So all N girls are standing in a line from 1 to N so that Rishi will select one of them. The girls are standing in a straight line but randomly. They know they cannot predict what Rishi The Great likes, He may like *hot, smart, tall, short, witty, white, black* or anything. But wait, Rishi, the Coolest Dude plans to date two girls this week !!! *How lucky they are* ????. But he wants to select two girls whose friendship quotient is maximum so that they wont fight too much over Rishi during the date. He is shy too !. Friendship quotient is defined as the product of absolute difference between the position of the two girls and the minimum height of the two girls.

Can you help Rishi to find the maximum friendship quotient ?

## Input Specification

The first line of input file contains T which denotes number of testcases.

2\*T lines follows.

First line of each test case contains an integer N.

Second line of each test case contains N space separated integers denoting the height of each girl.

## Output Specification

The output must contain T lines each line corresponding to a testcase.

## Constraints

$T \leq 20$

$N \leq 100000$

$\text{Height}[i] \leq 10^9$

## Sample Input:

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

## Sample Output:

```
9
16
```