
Maximum of minima

P38906_en

Vint-i-unè Concurs de Programació de la UPC - Final (2023-09-27)

Write a function

```
long long maxmin(const vector<long long>& V);
```

that returns

$$\max_{0 \leq i < j < n} \{ \min(V[i], V[j]) \times (j - i) \} .$$

For instance, the answer for $[9, 7, 4, 1]$ is 8, corresponding to the numbers 9 and 4, which are at distance 2. As another example, the answer for a vector with eleven 10^9 is 10^{10} .

Precondition

V has between 2 and 10^5 numbers, all between 0 and 10^9 .

Observation

The expected solution has cost $\Theta(V.size())$, with a small constant.

Observation

You only need to submit the required procedure; your main program will be ignored.

Problem information

Author : Javier Nistal

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