1 Problem Statement

`https://www.hackerrank.com/challenges/sherlock-and-minimax`

2 Observation

Note that given a range of number, we should take a greedy approach to figure out which one is most promising, rather than testing all the possiblities in the range.

What is the greedy approach? Given a number and calculate all abs difference, we see that it forms a patten of

1 It has a minimum within the given numbers, if this number falls between somewhere of $[a_i, a_{i+1}]$

2 It has a minimum in the beginning or the end.

For the first case, the greediest choice is to choose number in the range that fall excatly at the middle: $(a_i + a_{i+1})/2$. If it is impossible to choose the middle, we simply ignore this middle.

For the second case, the greediest choice is to check P or Q for maximum minimum difference.