Problem Link:

<https://leetcode.com/problems/minimize-the-maximum-difference-of-pairs/?envType=daily-question&envId=2025-06-13>

Solution:

class Solution {

public:

bool pairs(const vector<int>& nums, int p, int m) {

int c = 0;

int i = 1;

while(i < nums.size())

{

if(nums[i] - nums[i - 1] <= m)

{

c++;

i += 2;

}

else

{

i++;

}

}

return c >= p;

}

int minimizeMax(vector<int>& nums, int p) {

sort(nums.begin(), nums.end());

int l = 0, r = nums.back() - nums.front();

while (l < r) {

int m = l + (r - l) / 2;

if(pairs(nums, p, m))

{

r = m;

}

else

{

l = m + 1;

}

}

return l;

}

};