825. Friends Of Appropriate Ages

DescriptionHintsSubmissionsDiscussSolution

Some people will make friend requests. The list of their ages is given and `ages[i]` is the age of the ith person.

Person A will NOT friend request person B (B != A) if any of the following conditions are true:

- `age[B] <= 0.5 * age[A] + 7`
- `age[B] > age[A]`
- `age[B] > 100 && age[A] < 100`

Otherwise, A will friend request B.

Note that if A requests B, B does not necessarily request A. Also, people will not friend request themselves.

How many total friend requests are made?

Example 1:

```
Input: [16,16]
Output: 2
Explanation: 2 people friend request each other.
```

Example 2:

```
Input: [16,17,18]
Output: 2
Explanation: Friend requests are made 17 -> 16, 18 -> 17.
```

Example 3:

```
Input: [20,30,100,110,120]
Output:
Explanation: Friend requests are made 110 -> 100, 120 -> 110, 120 -> 100.
```

Notes:

- `1 <= ages.length <= 20000`.
- `1 <= ages[i] <= 120`.

```
class Solution {
public:
  int numFriendRequests(vector<int>& ages) {
    sort(ages.begin(),ages.end());
    int left=0,right=0;
    int res = 0;
    for(int i=0;i<(int)ages.size();++i)
    {
```

```
        while(left<ages.size() && ages[left] <= 0.5 * ages[i] + 7)
        {
          left++;
        }
        if(left>i) continue;
        while(right<ages.size() && ages[right] <= ages[i])
        {
          right++;
        }
        res += right-left-1;
      }
      return res;
    }
};
```