011. Container With Most Water

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- **Two Pointer**+Array

Description

Given n non-negative integers a_1, a_2, ..., a_n, where each represents a point at coordinate (i, a_i). n vertical lines are drawn such that the two endpoints of line i is at (i, a_i) and $(i, 0)$. Find two lines, which together with x-axis forms a container, such that the container contains the most water.

Note: You may not slant the container and n is at least 2.

1. Thought Line

2. Two Pointer+Array

```cpp
class Solution {
public:
    int maxArea(vector<int>& height) {
        int water = 0;
        int i = 0, j = height.size() - 1;
        while (i < j) {
            int h = min(height[i], height[j]);
            water = max(water, (j - i) * h);
            while (height[i] <= h && i < j) i++;
            while (height[j] <= h && i < j) j--;
        }
        return water;
    }
};
```