# 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

```
1 class Solution {
 2 public:
     int maxArea(vector<int>& height) {
      int water = 0;
       int i = 0, j = height.size() - 1;
      while (i < j) {
 6
        int h = min(height[i], height[j]);
 8
          water = max(water, (j - i) * h);
9
          while (height[i] \leftarrow h && i < j) i++;
10
        while (height[j] \leftarrow h && i < j) j--;
11
12
       return water;
13
14 };
```