

16. 3Sum Closest

题目描述: <https://leetcode.com/problems/3sum-closest/>

给定一个整数数组作为candidate，给定一个整数作为target，求candidate中取3个数，加和离target最近的数。

例如:

```
candidate = [-1,2,1,-4] target = 1
```

返回:

```
2
```

解题思路:

从距离target最近的数开始判断，依次遍历，找到第一个可以3sum的值

代码:

```

class Solution {
public:
    bool is3Sum(vector<int> nums, int target){
        for(int i = 0; i < nums.size(); i++){
            int k = i + 1;
            int j = nums.size() - 1;
            int t = target - nums[i];
            while(k < j){
                if(nums[j] + nums[k] == t){
                    return true;
                }
                else if(nums[j] + nums[k] < t){
                    k++;
                }
                else{
                    j--;
                }
            }
        }
        return false;
    }

    int threeSumClosest(vector<int>& nums, int target) {
        sort(nums.begin(), nums.end());
        int now1 = target, now2 = target;
        int i = 0;
        bool r1 = false, r2 = false;
        while(!r1 && !r2){
            now1 = target + i;
            now2 = target - i;
            r1 = is3Sum(nums, now1);
            if(!r1)
                r2 = is3Sum(nums, now2);
            i++;
        }
        if(r1)
            return now1;
        return now2;
    }
};

```