public int [] twoSum(int[] nums, int target)

{

    Map<Integer, Integer> map = new HashMap<>();

    for (int i = 0; i < nums.length; i++) {

        int complement = target - nums[i];

        if (map.containsKey(complement)) {

            return new int[] { map.get(complement), i };

        }

        map.put(nums[i], i);

    }

    throw new IllegalArgumentException("No two sum solution");

}