**Median of Two Sorted Arrays**

**Instruction:**

Given two sorted arrays **nums1** and **nums2** of size **m** and **n** respectively, return the median of the two sorted arrays.

**Example 1:**

Input: nums1 = [1,3], nums2 = [2]

Output: 2.00000

Explanation: merged array = [1,2,3] and median is 2.

**Example 2:**

Input: nums1 = [1,2], nums2 = [3,4]

Output: 2.50000

Explanation: merged array = [1,2,3,4] and median is (2 + 3) / 2 = 2.5.

**Constraints:**

* **nums1.length == m**
* **nums2.length == n**
* **0 <= m <= 1000**
* **0 <= n <= 1000**
* **1 <= m + n <= 2000**
* **-106 <= nums1[i], nums2[i] <= 106**

**CASES TO TEST:**

**CASE 1:**

Input: **nums1** = [1, 3], **nums2** = [1]

Expected Output = 2.00000

**CASE 2:**

Input: **nums1** = [1, 2], **nums2** = [3, 4]

Expected Output = 2.50000