**Meeting in the Middle**

Tim and Allen are comparing the power levels of their playing cards and would like to find what is the overall “all-rounder” between their two sets of cards. Do you think you can help them out?

You will be given two sorted lists of integers which represent the power levels and you must return the ***median*** of the two lists.

**Input:** The first line of input contains **N** and **M**, the number of elements on the first and second line respectively. The second line contains **N** space-separated integers which are the power levels of Tim’s cards. The third line contains **M** space-separated integers which are the power levels of Allen’s cards.

**Output:** the median of the two lists.

**Example Input:**

2 4

1 3

2 4 5 6

**Example Output:**

3.5

**Explanation:** If you put the two lists into one, you get 1, 2, 3, 4, 5, 6 and the median is

(3 + 4)/2 = 3.5.