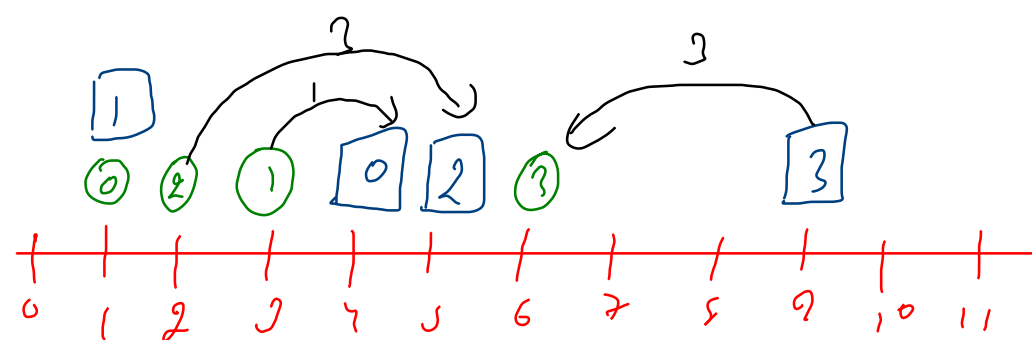


Seat  $\rightarrow$      
 Student  $\rightarrow$    



## 2037. Minimum Number of Moves to Seat Everyone

There are  $n$  seats and  $n$  students in a room. You are given an array `seats` of length  $n$ , where `seats[i]` is the position of the  $i^{\text{th}}$  seat. You are also given the array `students` of length  $n$ , where `students[j]` is the position of the  $j^{\text{th}}$  student.

You may perform the following move any number of times:

- Increase or decrease the position of the  $i^{\text{th}}$  student by 1 (i.e., moving the  $i^{\text{th}}$  student from position  $x$  to  $x + 1$  or  $x - 1$ )

Return the **minimum number of moves** required to move each student to a seat such that no two students are in the same seat.

Note that there may be **multiple** seats or students in the **same** position at the beginning.

**Input:** `seats = [3,1,5]`, `students = [2,7,4]`

**Output:** 4      0 1 2      0 1 2

**Explanation:** The students are moved as follows:

- The first student is moved from from position 2 to position 1 using 1 move.
- The second student is moved from from position 7 to position 5 using 2 moves.
- The third student is moved from from position 4 to position 3 using 1 move.

In total,  $1 + 2 + 1 = 4$  moves were used.

### Example 2:

**Input:** `seats = [4,1,5,9]`, `students = [1,3,2,6]`

**Output:** 7      0 1 2 3      0 1 2 3

**Explanation:** The students are moved as follows:

- The first student is not moved.
- The second student is moved from from position 3 to position 4 using 1 move.
- The third student is moved from from position 2 to position 5 using 3 moves.
- The fourth student is moved from from position 6 to position 9 using 3 moves.

In total,  $0 + 1 + 3 + 3 = 7$  moves were used.