Lab 12

Problem Description:

Sorting is a fundamental requirement in almost all search based algorithms. In this lab, you are required to build an efficient solution for the same. To facilitate the sorting, elements in a sequence have to be rearranged in a specific order *i.e.* in an ascending or descending order. This rearrangement of the elements must be accomplished only by successively swapping pairs of consecutive elements. The efficiency of this algorithm is time dependent, as such the goal is to minimize the number of swaps required.

Input: The first line of input contains one positive integer n (0<n<1000001), the number of input elements to be sorted. The following n lines each contain one number m (0<m<10000000), and you may assume no number will appear more than once.

Output: The output will contain just one number representing the minimum number of swaps required to arrange the elements in increasing order.

Test Case	Input	Output
1	3 3 1 2	2
2	5 2 6 1 4 8	3
3	9 5 6 2 1 3 7 8 110000 25	8