

**A NICE SEQUENCE** (Latvia)

The main idea of the algorithm is a recursion. We try to add next element of the sequence to the existing sub-sequence. At each step it is worth to remember which elements had been included in this sub-sequence before, because if we had the sub-sequence  $a_1, a_2, a_3, \dots, a_n$  in the past, there is no need to investigate the sub-sequences, where  $a_3, a_4$ , or any other element of the previous sub-sequence comes directly after  $a_1$ .

You can try to optimise the solution by cutting off the elements which are equivalent to their preceding elements (because such elements can be included in the same sub-sequence as the previous element).

This problem may contain more than one correct answer.