Problem D. Disjoint LIS

Input file:	*standard input*
Output file:	*standard output*
Time limit:	3 seconds
Memory limit:	512 mebibytes

Let the LIS of a permutation be the length of its longest increasing subsequence.

A permutation is **good** if it is possible to find two increasing subsequences of length LIS that do not share any common elements.

Given n, find the number of good permutations with n elements. As the answer may be large, you only need to find it modulo $998\,244\,353$.

Input

The first line of input contains one integer n ($1 \le n \le 75$): the number of elements.

Output

Output one integer: the number of good permutations with n elements, modulo $998\,244\,353$.

Example

standard input	standard output
6	132