

The 26th Annual
ACM International Collegiate
Programming Contest
ASIA Regional - Taejon



Practice Problem C

Adding 1s, 2s, and 3s
Input: add.in

Integer 4 can be expressed as a sum of 1s, 2s, and 3s in seven different ways as follows:

1+1+1+1,
1+1+2,
1+2+1,
2+1+1,
2+2,
1+3, and
3+1.

Write a program that determines the number of ways in which a given integer can be expressed as a sum of 1s, 2s, and 3s. You may assume that the integer is positive and less than 11.

Input

The input consists of T test cases. The number of test cases (T) is given in the first line of the input file. Each test case consists of an integer written in a single line.

Output

Print exactly one line for each test case. The line should contain an integer representing the number of ways.

Sample Input (add.in)

Output for the Sample Input

3	7
4	44
7	174
10	