Fibonacci starters

Fibo was a Famous Farmer. Who lived in the city of Fibonacia. One day while Farming For Fibonuts he saw a golden Fiboegg. He thought that now he will become a rich man with this golden Fiboegg. That night while he was sleeping a Fairy came in his dream and asked him did the Fiboegg came first or the golden Fibohen. So now come to the point: Fibonacci series is a series in which every term is the sum of the previous two terms. eg. 0 1 1 2 3 5 8 13

Your task is to print the SUM of First N Fibonacci terms.

Input

First line of input will contain number of testcases T(<=1000), followed by T lines. Every line will contain a positive integer N(<=90).

Output

For every input print the sum of first N fibonacci numbers.

Example

Input:

2

5 8

Output:

7

33