# **Project Euler #2: Even Fibonacci numbers**



This problem is a programming version of Problem 2 from projecteuler.net

Each new term in the Fibonacci sequence is generated by adding the previous two terms. By starting with 1 and 2, the first 10 terms will be:

$$1,2,3,5,8,13,21,34,55,89,\cdots$$

By considering the terms in the Fibonacci sequence whose values do not exceed N, find the sum of the even-valued terms.

### **Input Format**

First line contains T that denotes the number of test cases. This is followed by T lines, each containing an integer, N.

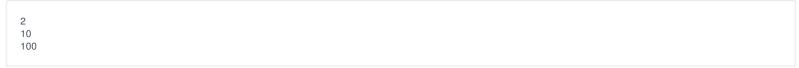
# **Output Format**

Print the required answer for each test case.

## **Constraints**

$$1 \le T \le 10^5 10 \le N \le 4 \times 10^{16}$$

### **Sample Input**



### **Sample Output**

10 44