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, …

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.

**Constraints**

* T 🡪 1 to 10^5
* N 🡪 10 to 4\*10^16

**Output Format**

Print the required answer for each test case.

**Sample Input 0**

2

10

100

**Sample Output 0**

10

44