

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 **four million**, find the sum of the even-valued terms.

Twist:

Implement Fibonacci calculator in $O(n)$ time, not exponential as the naïve recursive method would be.

Twist2:

Implement Fibonacci calculator in $O(\log(n))!$