

Even Fibonacci numbers

[Problem 2 \(https://projecteuler.net/problem=2\)](https://projecteuler.net/problem=2)

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.

Solution

```
In [1]: ▶ s = 0
a = b = 1
while b <= 4_000_000:
    a, b = b, a + b
    if b % 2 == 0:
        s += b
print(s)
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```