P2: 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:

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

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

Answer:

Fibo <= 4.000.000: 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1.597, 2.584, 4.181, 6.765, 10.946, 17.711, 28.657, 46.368, 75.025, 121.393, 196.418, 317.811, 514.229, 832.040, 1.346.269, 2.178.309, 3.524.578

Fibo <= 4.000.000 & even: 2, 8, 34, 144, 610, 2.584, 10.946, 46.368, 196.418, 832.040, 3.524.578

Total: 4.613.732