

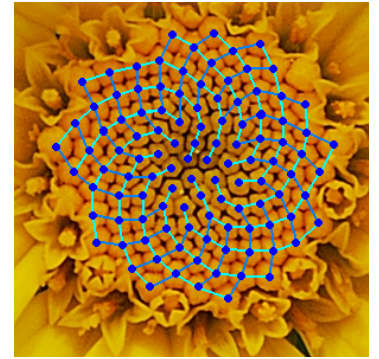
Math Challenge #2

The **Fibonacci sequence** is a well-known sequence in mathematics:

1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, ...

We start with 1 and 1, then add them to get the next term of 2. We do the same for 1 and 2 to get the next term of 3. Do the same for 2 and 3 to get 5, and so on, forever.

The Fibonacci sequence has many applications in math and nature. For example, the flower on the left has 13 spirals in one direction and 21 in the other, both of which are both Fibonacci numbers. The ancestry of bees follows the Fibonacci sequence, and the ancestry of humans' X chromosome line does as well.



Write a Python program to find the sum of all the *even* Fibonacci numbers that are *less than 2 million*. You may find it helpful to start with a smaller number first. If you look at the Fibonacci numbers less than 200 above, you can see that:

$$2 + 8 + 34 + 144 = 188$$

If your program can successfully find this answer, you'll be ready to find the answer for 2 million.