Write a method to calculate the Fibonacci sequence

Write a version using iteration (a for-loop) and another version using recursion

Use the code we wrote to calculate the factorial for inspiration

What is the Fibonacci sequence?

<https://en.wikipedia.org/wiki/Fibonacci_number>

The Fibonacci sequence is a sequence in which each number is the sum of the two preceding ones. The sequence commonly starts from 0 and 1, (although some authors omit the initial terms and start the sequence from 1 and 1 or from 1 and 2). Starting from 0 and 1, the next few values in the sequence are:

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, ...

0+1 = 1

1+1 = 2

1+2 = 3

2+3 = 5

3+5 = 8

Etc. etc.

So, the method you write should take an index and should return the correct number in the sequence.

For example, if you pass the method a 9 the method should return 34

DO NOT hardcode the sequence, the method needs to calculate what the correct number is. It needs to figure it out based on the 2 numbers before this index, adding them together and getting the answer.