A really simple project:

Four methods, of two operations!

First operation:

Code recursively and iteratively the Fibonacci sequence to 30 values, capturing the number of "executions" or "steps" (the "plusses") so you can see how effective iteration and recursion are for this formula.

Second operation:

Code recursively and iteratively the mathematical exponentiation function, given a base and an exponent. The base can be a double, but the exponent must be an integer, but it CAN be negative. Keep track of the "execution" steps in the form of the "multiplications" here. Recognize, in this case, you can do a cool recursive trick when the exponent is even of returning the same function on base doubled but the exponent halved.... this should be in the textbook, and we'll go over it when we're back from break. You can get started on the other three of the four well before this one, though! And, of course, pay attention to the weird cases (base of zero, exponent of zero, etc).

# What I learned

Fibonacci is hard to spell.

I used the Wikipedia implementations to save time.