

## QUESTION

Why is it a bad idea to use recursion method to find the fibonacci of a number?

## ANSWER

The recursive method works by calling a function within itself until a certain condition is met. So to compute nth term of the fibonacci sequence with the recursive method, the function to generate the numbers will keep calling itself until a condition is met.

```
function fibonacci(x, y){  
    if condition is met, then return result;  
    else do some computation, then call fibonnaci(x, y) again with modified values of x and y  
}
```

This method consumes more memory as calling the function multiple times requires that the call stack be stored in a memory. This will significantly increase the time and power required to compute large nth terms of a number sequence as long as the Fibonacci, with the risk of program failure.

A better method for this purpose would be the iterative method. The iterative method uses a loop to generate the numbers, by simply executing the block of code within it multiple times. This method doesn't require any other memory apart from the ones used to declare variables in the code. This also makes it faster.

The recursive method also uses code that might not be as easy to read by another programmer as the iterative method would.