

# Fibonacci Example - What is Recursion and Why Should You Usually NOT do it?

Recursion is where a method calls itself - and it's a favourite technique of programmers trying to be clever. Some people really like it. Some people have been told it's a good idea. **To be clear...**

- It is **HARDLY EVER** a good idea.
- In this module it is **NEVER** a good idea.

If you want to see one reason why not, download and run the program below - it computes Fibonacci numbers using a loop and recursion and compares them. As well as the very obvious problem when you do that, the recursive version uses a 'block' of extra memory for every extra Fibonacci number it computes: the other one doesn't. We aren't really short of memory - but this is a pointless waste of it.

**Fibonacci.java** (<https://canvas.swansea.ac.uk/courses/44525/files/4319169/download?wrap=1>)\_ ↓  
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