

Selftest Module 20

The Lucas numbers are defined by:

- $L_0 = 2$
- $L_1 = 1$
- $L_{n+2} = L_{n+1} + L_n$

The first Lucas numbers are 2, 1, 3, 4, 7, 11, 18, 29, 47, 76, ...

1. Write a recursive function that calculates the Lucas numbers. Obviously, you can adopt the code for the Fibonacci numbers.
2. What is the largest Lucas number your computer can calculate in at most 30 seconds.