

Recursion examples

The aim of this class is to familiarise you with writing Erlang programs using recursion.

Fibonacci numbers

The Fibonacci sequence is given by 0, 1, 1, 2, 3, 5, ... where subsequent values are given by adding the two previous values in the sequence.

Give a recursive definition of the function `fib/1` computing the Fibonacci numbers, and give a step-by-step evaluation of `fib(4)`.

How many pieces?

Define a function `pieces` so that `pieces(N)` tells you the maximum number of pieces into which you can cut a piece of paper with `N` cuts.

Into how many pieces can you cut a wooden block with `N` saw cuts?

What is the general problem in n dimensions?

