



CIS 623, Fall 2018

Assignment 7: Efficiency & Sorting

Due: Friday, November 9

What

- Read Chapter 7 of the Bird text, including exercises and solutions.
- Give a complete proof that the naive implementation of `fib` is of order ϕ^n where ϕ is the *golden ratio*:

$$\phi = (1 + \sqrt{5})/2$$

- Watch *Sorting Out Sorting* on Youtube and implement in Haskell the sorting algorithms presented therein. Learn the *order*, in the sense of Bird, of each algorithm. See if you can use *tupling* or *accumulating parameters* to clean up your solutions.

You will not submit any work for this homework, but your command of the content will be assessed on quizzes and exams.