

CSC236 tutorial exercise #3
week #4, fall 2014

1. Use induction to prove that $(1 + 1/n)^n \leq n$ for most natural numbers n .
2. Prove that any full binary tree with more than zero nodes has exactly one more leaf than internal nodes. For a definition of a full binary tree, see the lecture slides or the [course notes, example 1.13, page 42](#).