

Exercise Session

- C.1-28 p. 53
- Simplify the following expressions:
 - ^{1.} $O(1 + \log n) + O(\log n + 1) + 3n^2$
 - ^{2.} $O(2008 - \sqrt{2009})$
 - ^{3.} $\frac{7.5n^2 * O(2008 - \sqrt{2010})}{O(n)}$
- Prove three selected entries in Theorem 1.7 p.15. Do the rest as a self study. Point 4 is left as homework.
- Compare asymptotic space usage of Algorithm 1.4 p. 12 and Algorithm 1.2 p. 7

Problems For Self-Study

- Write a short program that has at least two nested loops but runs in linear time (10 minutes).
- C-2.1 p. 133 (10-20 minutes)
- C-2.3 p. 133 (10-20 minutes)

Homework Assignment

- C-2.5 p.133 *Hint*: Use the same idea as in the ringbuffer implementation of the queue data structure (40 minutes).
- Prove theorem 1.7.4 p. 15 (30 minutes).