

# Lecture 14 home work

In preparation for the lecture about I/O, please answer the following questions (you need not hand them in):

- What cache replacement policy does `bio.c` (sheet 45-53) implement? Can a buffer both be on a block device list (`bdevsw[dev.d_major].d_tab`) and the free list (`bfreelist`)? When a block is released, is it removed from `bdevsw[dev.d_major].d_tab`? When a block is released, where is it inserted in `bfreelist`? Chapter 17 and the beginning of chapter 15 (15-1) may be good reading.
- The RK device (the disk) operates in parallel with the processor, yet they share a number of registers (`rkds`, `rker`, `rkcs`, `rkwc`, `rkba`, `rkda`). Can it happen that the processor and the RK device ever write both to the same register at the same time? Explain why it cannot happen, or give an example of a register that could be written by both at potentially the same time? Chapter 16 might be helpful.