hw8 (ddl 7.23)

3rd edition, single pdf, in English 9.16 (erratum: ... b. why must a RTI instruction ...) 9.17

9.16

- a. 256. Because the trap vector is 8-bit wide.
- b. The RTI instruction returns control to the calling program(pops the top two values on the system stack into the PC and PSR). While BR instruction doesn't restore PC.
- c. A TRAP instruction can make only one access to memory.

9.17

- a. Only some external mechanism can restart the clock after it's halted, because the original program has stopped.
- b. STI RO, MCR (Because it sets the RUN latch to '0'.)
- c. LD R1, SaveR1(Because it's the first instruction after HALT.)
- d. To the next address of the HALT instruction, in the program which executed the HALT instruction.