hw8(9')

9.16(5')

a. There are 256 trap service routines can be implemented in LC-3. Because the number of addresses in the Trap Vector Table is 256.

答到256一分，答到Trap Vector Table及其等价描述一分。

b. Because the `RTI` instruction will pop PC and PSR which have been pushed into the system stack by `trap` instruction. And change the stack pointer if necessary. The BR instruction can only recover the PC but can't recover the PSR and stack pointer.

回答出RTI指令相关功能一分，BR指令回答合理给一分

c. Get the address from the Trap Vector Table. Push the PC into the system stack. Push the PSR into the system stack. So the number of accesses is 3.(Note that Saved_USR and Saved_SSP are registers.)

答出3一分。

9.17(4')

a. Because the computer is halted, there is no instruction to restart the clock. Some external mechanism should be used to restart the clock. 答出重启时钟的外部机制或类似表述一分

b. `STI R0, MCR`. 答出具体的指令，或者指出指令所在的行号(`x13`)一分。

c. `LD R1, SaveR1`. 答出具体的指令，或者指出指令所在的行号(`x18`)一分。

d. The next instruction after the `trap x25` instruction. 意思与 `trap x25` 的下一条指令相同一分。