8.5 What is the purpose of bit [15] in the KBSR?
8.6 What problem could occur if a program does not check the Ready bit of the KBSR before reading the KBDR?
8.7 Which of the following combinations describe the system described in Section 8.2.2?
   a. Memory mapped and interrupt driven
   b. Memory mapped and polling
   c. Special opcode for I/O and interrupt driven
   d. Special opcode for I/O and polling
8.8 Write a program that checks the initial value in memory location x4000 to see if it is a valid ASCII code and if it is a valid ASCII code, prints the character. If the value in x4000 is not a valid ASCII code, the program prints nothing.
8.9 What problem is likely to occur if the keyboard hardware does not check the KBSR before writing to the KBDR?
8.10 What problem could occur if the display hardware does not check the DSR before writing to the DDR?
8.11 Which is more efficient, interrupt-driven I/O or polling? Explain.
8.12 Adam H. decided to design a variant of the LC-3 that did not need a keyboard status register. Instead, he created a readable/writable keyboard data and status register (KBDSR), which contains the same data as the KBDR. With the KBDSR, a program requiring keyboard input would wait until a nonzero value appeared in the KBDSR. The nonzero value would be the ASCII value of the last key press. Then the program would write a zero into the KBDSR indicating that it had read the key press. Modify the basic input service of Section 8.2.2 to implement Adam’s scheme.
8.13 Some computer engineering students decided to revise the LC-3 for their senior project. In designing the LC-4, they decided to conserve on device registers by combining the KBSR and the DSR into one status register: the IOSR (the input/output status register). IOSR[15] is the keyboard device Ready bit and IOSR[14] is the display device Ready bit. What are the implications for programs wishing to do I/O? Is this a poor design decision?
8.14 An LC-3 Load instruction specifies the address xFE02. How do we know whether to load from the KBDR or from memory location xFE02?