**Review Questions**

1. What are the four main functions of a computer?
   1. Data Processing
   2. Data Storage
   3. Data Movement
   4. Computer Control
2. List and briefly define the main structural components of a computer.
   1. **I/O Ports and Devices**- Connections and control systems for input and output devices such as monitors and keyboards
   2. **Main Memory-** Main digital storage for the computer. Generally has the slowest access but largest size
   3. **CPU-** Central Processing Unit, also called a central processor or processor. Acts as the “brain” of the computer. Controls everything that happens and manages all instructions
   4. **System Bus-** used to connect all of the components of the computer, the System Bus carries information between the components and determines the operation and destination of information in the main computer
3. List and briefly define the main structural components of a processor.
   1. **Registers-** used to
   2. **ALU-** Arithmetic and Logic Unit, is the computational part of the processor
   3. **Control Unit-** coordinates the processor and the computer as a whole. In charge of decoding instructions, tracking the status and memory of the computer, and sequencing computer instructions
   4. **Internal Bus-** used to connect all of the components of the processor, carries information between the modules of the processor and relaying information.
4. What is a stored program computer?
   1. A computer that stores program instructions in digital memory instead of on punch cards or lines of tape
5. List and explain the key characteristics of a computer family.
   1. **Similar/identical instruction set-** all members of the family support the same machine instruction sets
   2. **Similar/identical operating system-** same basic operating system that increases usability and can offer upgrades for higher-end systems
   3. **Increasing speed-** higher-end family members can offer increased speed
   4. **Increasing # of I/O ports-** higher-end family members offer more I/O ports
   5. **Increasing memory size-** higher-end family members offer more memory/storage
   6. **Increasing cost-** higher-end family members cost more to produce and use. higher parts causing them to cost more

**Problems**

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| **Address** | **Contents** | **Description** |
| 08A | 010FA 210FB | LOAD M(0FA) - STOR M(0FB) |
| 08B | 010FA 0F08D | LOAD M(0FA) - JUMP + M(08D, 0:19) |
| 08C | 020FA 210FB | LOAD - M(0FA) - STOR M(0FB) |

1. 40 bits
2. The Model 75 can fetch and complete more instructions at once and has a higher cache