A Simplified Computer

The LMC = Little man computer

INSTRUCTION SET

<table>
<thead>
<tr>
<th>op-code</th>
<th>symbolic</th>
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<tbody>
<tr>
<td>00</td>
<td>ADD</td>
</tr>
<tr>
<td>01</td>
<td>GET #</td>
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<tr>
<td>02</td>
<td>GOTO #</td>
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<tr>
<td>03</td>
<td>IF 0 GOTO #</td>
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<tr>
<td>04</td>
<td>INCR</td>
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<tr>
<td>05</td>
<td>LOAD</td>
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<tr>
<td>06</td>
<td>PUT #</td>
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<tr>
<td>07</td>
<td>STOP</td>
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<tr>
<td>08</td>
<td>STORE</td>
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<tr>
<td>09</td>
<td>SUB</td>
</tr>
<tr>
<td>10</td>
<td>SWAP</td>
</tr>
<tr>
<td>11</td>
<td>WRITE #</td>
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## BASIC FACTS TO ASK ABOUT ANY COMPUTER

### LMC ANSWERS

**1. MEMORY**
- (A) BASIC UNIT: 3 DECIMAL DIGIT NUMBER
- (B) MAXIMUM SIZE: 1000 LOCATIONS

**2. REGISTERS**
- (A) HOW MANY: 3
- (B) NUMBERS: 3 DECIMAL DIGIT NUMBER

**3. INSTRUCTIONS**
- (A) NUMBER: 12 INSTRUCTIONS

### INTEL PENTIUM III ANSWERS

**1. MEMORY**
- (A) INDUSTRY BASIC UNIT: 8 BINARY DIGITS (BITS) = 1 BYTE
- (B) BASIC UNIT: 32 BITS = 4 BYTES
- (C) TYPICAL SIZE:
  - MEMORY RAM: 64-768 MB
  - L2 CACHE: 128 - 512 KB

**2. REGISTERS**
- (A) HOW MANY: ABOUT 50 REGISTERS
- (B) NUMBERS: VARIOUS TYPES

**3. INSTRUCTIONS**
- (A) NUMBER: ABOUT 500
A “Real” Computer

Keywords:
- CPU
- Memory
- Registers
- Instruction Counter
- Clock
- Keyboard
- Mouse
- Monitor
- Laser printer