

Chapter 2: 1, 2, 8, 16, 17, 18, 19, 20, 21, 22, 29, 31, 38, 39c, 42, 44, 45, 46, 47, 51, 52, 53, 57adh, 63ace

- 1) 8
- 2) 8
- 5) \$28 in spot R20
- 6) a, c, d, e, g
- 7) c

39c)

0FF  
\$05  
\$104

1 C flag

- 13) true
- 14) false
- 15) false
- 16) data memory
- 17) EEPROM data doesn't get lost when turned off. Data Ram bits changed a lot.
- 19) yes

- 42) \$16  
\$56  
\$99  
\$20  
\$FC  
\$FB

20) no

- 44) low, high
- 45) Assembly
- 46) assembler
- 47) True

21) \$00 to \$FFFF

22) 65,536 bytes

50) They are not actual instructions to the machine. They give directions to an assembler.

29)

```
LDI R18, $15
STS $07, R18
LDI R19, 0
ADD R19, R20
ADD R19, R20
ADD R19, R20
ADD R19, R20
ADD R19, R20
```

52) True

53) hex

31)

```
LDS R27, $68
Com R27
```

- 57) a) 2
- d) 2
- n) 4

38)

\$FE	C=1
\$01	
\$100	2=1

(63) a) \$1FFF + 1 = 8192 words = 16KB

c) \$7FFF + 1 = 32768 words = 64KB

e) \$1FFFF + 1 = 131,072 words = 256KB