

CS 273 HW4

5) 4 byte

7) Same

12) LDI R20, -10

One: LDI R21, 100

two: DEC R21

BRNE two

DEC R20

BRNE one

14) 20,000

-16) positive

1) ⑥ C = 0

Z = 0

H = 1

'99

+ 58

FF

⑥ C = 1

Z = 1

H = 1

'FF

+ 1

00

8) LDI R20, \$9A
 LDI R21, \$7F
 LDI R22, \$48
 LDI R23, \$BC
 SUB R20, R22
 SBC R21, R23

0100 0000
 1100
 1111 0011
 + 1111 0011
 1111 0101
 + 0001 0101
 11000 1001
 2010 0101
 0011 0100
 0101 1001

14) a) LDI R20, 15
 LDI R21, F4
 ADD R20, R21
 V = 0

c) LDI R20, \$25
 LDI R21, \$80
 ADD R20, R21
 V = 0

16) V Flag is the overflow flag
 V=1 if there is carry from D6 to D7, but no
 carry out of D7. Or carry from D7 out but not
 D6 to D7