

Homework 2 Solutions

Problem 4.21)

- (a) LEA \$5000,A5 Loads the value \$00005000 into (A5)
- (b) MOVEA.W A2,A5 Copies the least significant word from A2 to A5
- (c) LEA (A2),A5 Copies the long word that A2 is pointing to into A5
- (d) MOVEA.L (A2),A5 Copies the long word A2 points to into A5

Problem 4.22)

- (a) MOVEA.W #\$8000,A0 \$FFFF8000
- (b) i. ADDA.W #C000,A0 \$42AFD152
ii. LEA (A0),A0 \$42AFD152
iii. MOVEA.W #\$300,A0 \$00000300
iv. SUBA.L #\$14,A0 \$000002EC
- (c) i. LEA (A2),A2 \$0010A00C
ii. MOVEA.L (A2),A2 \$0010A00C
iii. MOVEA.W (A2),A2 \$FFFFA00C
iv. ADDA.L (A2),A2 \$FFFF4018

Problem 5.1)

X=1, N=0, Z=0, C=1, V=1
X=1, N=0, Z=0, C=0, V=0
X=1, N=0, Z=0, C=0, V=0
X=1, N=1, Z=0, C=0, V=0

Problem 5.2)

- (a) X=0, N=0, Z=0, C=0, V=0
X=1, N=1, Z=0, C=1, V=0
X=1, N=1, Z=0, C=1, V=0
X=1, N=1, Z=0, C=1, V=0

Problem 5.5)

- X=0, N=0, Z=0, C=0, V=1
- i. YES
YES
NO
NO
NO

Problem 6.2)

- (a) \$00107A Address \$001078 changed to \$0000
(b) \$001074 Address \$001076 changed to \$1106
(c) \$00107C no change in memory
(d) \$00107A Address \$001078 changed to \$1111

(e) \$001078 no change in memory

Problem 6.7)

(a) \$00101E in A3 Address \$00101A changed to
\$FFFFFFA3

(b) no change

(c) \$00101E in A3 Address \$00101E changed to
\$0006FFFD

(d) \$001018 in A3 \$0007 in D2

(e) \$00101E in A3 Address \$00101A changed to
\$FFFF0004