YEDİTEPE UNIVERSITY

CSE232 SYSTEMS PROGRAMMING

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ASSIGNMENT 4

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Q1)

	CYCLE
LDX #?	3
L: CPX #0	3
BEQ FIN	4
LDAA #20	2
LDAA $120	4
LSR $120	6
LSR $120	6
LSR $120	6
STAA $120	5
ASLA	2
ASRA	2
CLRA	2
DEX	4
BRA L	4
FIN: .END	0

f = 1 MHz ➔ $T_{cycle} = 1 / (1 * 10^6) = 1\ \mu s$

t = 0.6 s

$t = (3 + 50 * x) * 1\ \mu s = 0.6\ s$ → x = 12000 → LDX #12000

Q2)

```
            .org $2000
            LDAA #$00
            STAA $90
            LDAA #$50
            STAA $91
            LDAA #$00
            STAA $92
            LDAA #$54
            STAA $93 ; Beginning and ending addresses of array are
defined

            LDAA #-5
            STAA $50
            LDAA #-7
            STAA $51
            LDAA #0
            STAA $52
            LDAA #5
            STAA $53
            LDAA #7
            STAA $54

            LDX $90
LOOP  LDAA $0,X
            JSR LOOPS
            CMPA #0
            BMI MINUS
            BRA PLUS


PLUS  LDAB #1
            BRA STORE

MINUS LDAB #0
            BRA STORE

STORE STAB $0,X
            INX
            CPX $92
            BEQ STOP
            BRA LOOP

STOP  .END

LOOPS PSHA
            PSHB
            STX $1FFE
            LDX #10
L           CPX #0
            BEQ FIN
            LDAA $0
            INCA
            DEX
            BRA L
FIN         LDX $1FFE
            PULB
```

```
PULA
RTS
.end
```