

Homework 4 Aid

Many LOOPS, Need Many Registers (needs more than A, B, X, Y registers)

Loop Comparison

Loop Comparison

delay1ms	PSHX	
	LDX	Counter1
dlymsLoop	NOP	
	DEX	
	BNE	dlymsLoop
	PULX	
	RTS	

Loop Comparison

delay1ms	PSHX	
	LDX	Counter1
dlymsLoop	NOP	
	DEX	
	BNE	dlymsLoop
	PULX	
	RTS	

DLY	PSHA	
	LDAA	#200
LOOP	SUBA	#1
	BNE	LOOP
	PULA	
	RTS	

Loop Comparison

```
delay1ms  PSHX
          LDX   Counter1
dlymsLoop NOP
          DEX
          BNE   dlymsLoop
          PULX
          RTS
```

```
DLY      PSHA
          LDAA  #200
LOOP     SUBA  #1
          BNE   LOOP
          PULA
          RTS
```

```
          ORG   $3000
CTR10US  DS.B   1

          ORG   $3100
Main     LDS    Main
          LDAA  #59
          STAA  CTR10US
          JSR   DLY10US
          LDAA

DLY10US  DEC    CTR10US
          BNE   DLY10US
          RTS
```

Loop Comparison

X Register

delay1ms	PSHX
	LDX Counter1
dlymsLoop	NOP
	DEX
	BNE dlymsLoop
	PULX
	RTS

DLY	PSHA
	LDAA #200
LOOP	SUBA #1
	BNE LOOP
	PULA
	RTS

CTR10US	ORG \$3000
	DS.B 1
Main	ORG \$3100
	LDS Main
	LDAA #59
	STAA CTR10US
	JSR DLY10US
	LDAA
DLY10US	DEC CTR10US
	BNE DLY10US
	RTS

Loop Comparison

X Register

```
delay1ms  PSHX
          LDX   Counter1
dlymsLoop NOP
          DEX
          BNE   dlymsLoop
          PULX
          RTS
```

A Register

```
DLY      PSHA
          LDAA  #200
LOOP     SUBA   #1
          BNE   LOOP
          PULA
          RTS
```

```
          ORG   $3000
CTR10US  DS.B   1

          ORG   $3100
Main     LDS    Main
          LDAA  #59
          STAA  CTR10US
          JSR   DLY10US
          LDAA

DLY10US  DEC     CTR10US
          BNE    DLY10US
          RTS
```

Loop Comparison

Memory

Main	CTR10US	ORG	\$3000
		DS.B	1
		ORG	\$3100
		LDS	Main
		LDAA	#59
		STAA	CTR10US
		JSR	DLY10US
		LDAA	
DLY10US	DEC	CTR10US	
	BNE	DLY10US	
	RTS		

X Register

delay1ms	PSHX
	LDX Counter1
dlymsLoop	NOP
	DEX
	BNE dlymsLoop
	PULX
	RTS

A Register

DLY	PSHA
	LDAA #200
LOOP	SUBA #1
	BNE LOOP
	PULA
	RTS

