# **CSE2006 Microprocessors and Interfacing Lab**

# **Exp 1: Arithmetic Instructions**

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## ADD:

ASSUME CS:CODE, DS:DATA

**DATA SEGMENT** 

OPR1 DW 1234H

OPR2 DW 0002H

RESULT DW 01 DUP(?)

DATA ENDS

**CODE SEGMENT** 

START: MOV AX, DATA

MOV DS,AX

MOV AX, OPR1

MOV BX, OPR2

CLC

ADD AX, BX

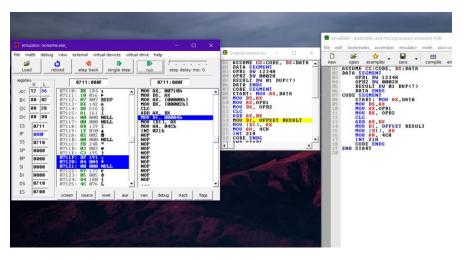
MOV DI, OFFSET RESULT

MOV [DI], AX

MOV AH, 4CH

INT 21H

**CODE ENDS** 



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Assembly Language Rogram for:  Addition:		
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ASSUME CS: CODE ED SIDATA 90		
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Mov Ds. Ax		
MOV AXX 80PRA 202		
TURE MOVERNO OPRI VOM		
CLC KA [76] VOM		
ADD AXABXIA VOM		
MOV [DI], AX THI		
MOV AH, 4CH 20M3 3000		
END START HIS THI		
CODE ENDS		
END START		

## SUB:

ASSUME CS:CODE, DS:DATA

**DATA SEGMENT** 

OPR1 DW 1234H

OPR2 DW 0002H

RESULT DW 01 DUP(?)

**DATA ENDS** 

**CODE SEGMENT** 

START: MOV AX,DATA

MOV DS,AX

MOV AX,OPR1

MOV BX, OPR2

CLC

SUB AX, BX

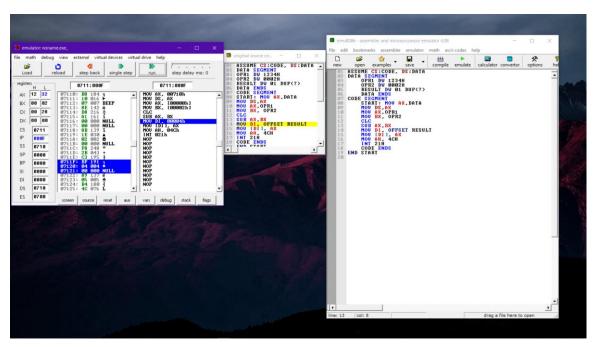
MOV DI, OFFSET RESULT

MOV [DI], AX

MOV AH, 4CH

INT 21H

**CODE ENDS** 



SUBTRACTION:
ASSUME CS: CODE, DS: DATA
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OPRINDIAL 1234 HOD : 20 5 MC
OPR2 DW COORTHEATH SOOD WG 2990
RESULT DW OIL DOP(3) WO IS
DATA ENDS HAGOO WAS
CODE SEGMENTUD 10 WO TO
START: MOU AX, DATA 2011
Mov Bos, Ax
SECHIPAGO, XA VOM
MOV BX STA OPRA VOM
CLC XA 20 VOM
SUB AXYBXXII VOM
MOV DEO, DEFSET ORESULT
MOV CDEJ, AX DJD
MOV AHOLAGA GAR
INT SIA [ITA] VOM
CODE ENDS HOP, HA VOM
END START HIS THIS
ENDS
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## MUL:

ASSUME CS:CODE, DS:DATA

**DATA SEGMENT** 

OPR1 DW 1234H

OPR2 DW 0002H

RESULT DW 01 DUP(?)

**DATA ENDS** 

**CODE SEGMENT** 

START: MOV AX,DATA

MOV DS,AX

MOV AX,OPR1

MOV BX, OPR2

CLC

MUL BX

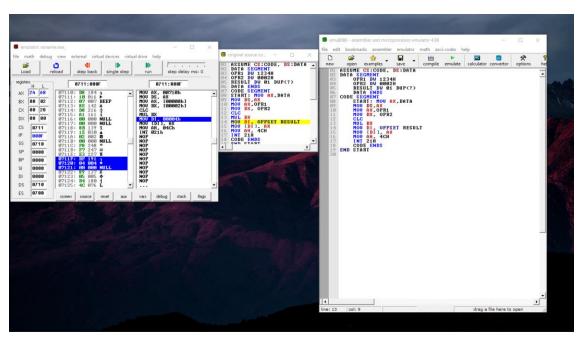
MOV DI, OFFSET RESULT

MOV [DI], AX

MOV AH, 4CH

INT 21H

**CODE ENDS** 



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## DIV

ASSUME CS:CODE, DS:DATA

**DATA SEGMENT** 

OPR1 DW 1234H

OPR2 DW 0002H

RESULT DW 01 DUP(?)

**DATA ENDS** 

**CODE SEGMENT** 

START: MOV AX, DATA

MOV DS,AX

MOV AX,OPR1

MOV BX, OPR2

CLC

**DIV BX** 

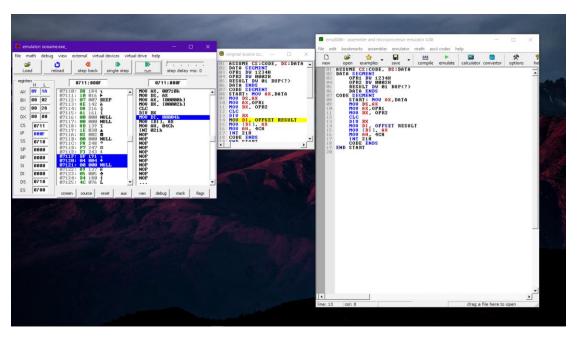
MOV DI, OFFSET RESULT

MOV [DI], AX

MOV AH, 4CH

INT 21H

**CODE ENDS** 



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ASSUME CS: GODE, D.S: T	SUME CE: ATA		
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OPRI DW 1234M WE SAGO			
RESULT DW 01 DUP G			
DATA ENDS	THE END		
CODE SEGMENT THE	DE SEGNE		
START: MOV AX DATA	ART : MOV A		
MOV DS AXO			
MOV AX OPR			
MOV BX OPR			
CLC			
DIV BX			
MOVALDIJI GAX VOM			
MOV AN HECHVOM			
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