

Green University Of Bangladesh
Name: Promod Chandra Das
ID: 231002005
Dept: CSE
Subject: MicroProcessor Lab
KSA-02

1. Perform addition, subtraction, multiplication and division of 6 and 2 these two numbers in a single code.

Answer:

```
.MODEL SMALL
.STACK 100H
.DATA
    A DW 6
    B DW 2
    SUM DW ?
    DIFF DW ?
    PROD DW ?
    QUOT DW ?
    REM DW ?
.CODE
MAIN PROC
    MOV AX, @DATA
    MOV DS, AX

    MOV AX, A
    ADD AX, B
    MOV SUM, AX

    MOV AX, A
    SUB AX, B
```

```
MOV DIFF, AX
```

```
MOV AX, A  
MUL B  
MOV PROD, AX
```

```
MOV AX, A  
XOR DX, DX  
DIV B  
MOV QUOT, AX  
MOV REM, DX
```

```
MOV AH, 4CH  
INT 21H
```

```
MAIN ENDP  
END MAIN
```

2. Take two single digit integer inputs from and perform addition, subtraction, multiplication and division on two numbers.

Answer:

```
.MODEL SMALL  
.STACK 100H  
.DATA  
MSG1 DB 'Enter first number: $'  
MSG2 DB 'Enter second number: $'  
RES_MSG DB 'Results - SUM: ', '$'  
A DW ?  
B DW ?  
SUM DW ?  
DIFF DW ?  
PROD DW ?  
QUOT DW ?  
REM DW ?  
.CODE  
MAIN PROC  
MOV AX, @DATA  
MOV DS, AX
```

```
MOV DX, OFFSET MSG1
MOV AH, 09H
INT 21H
```

```
MOV AH, 01H
INT 21H
SUB AL, 30H
MOV AH, 0
MOV A, AX
```

```
MOV DX, OFFSET MSG2
MOV AH, 09H
INT 21H
```

```
MOV AH, 01H
INT 21H
SUB AL, 30H
MOV AH, 0
MOV B, AX
```

```
MOV AX, A
ADD AX, B
MOV SUM, AX
```

```
MOV AX, A
SUB AX, B
MOV DIFF, AX
```

```
MOV AX, A
MUL B
MOV PROD, AX
```

```
MOV AX, A
XOR DX, DX
DIV B
MOV QUOT, AX
MOV REM, DX
```

```
MOV AH, 4CH
INT 21H
```

```
MAIN ENDP
END MAIN
```

