```
display macro arg
        lea dx,arg
        mov ah,09h
        int 21h
endm
read  macro
        display str1
        mov ah,01h
        int 21h
        sub al,30h
        mov bl,0ah
        mul bl
        push ax
        mov ah,01h
        int 21h
        sub al,30h
        mov ah,00h
        pop bx
        add ax,bx
        mov a,ax
endm
datas segment
        a dw ?
        res dw ?
menu db 0ah,0dh,"1.ADD    2.SUB  3.MUL   4.DIV 5.EXIT$"
choice db 0ah,0dh,"Enter your choice:$"
str1 db 0ah,0dh,"Enter no:$"
str2 db 0ah,0dh,"RESULT IS $"
str3 db 0ah,0dh,"RESULT IS -$"
str4 db 0ah,0dh,"quotient is 0 & remainder is $"
str5 db 0ah,0dh,"quotient is $"
str6 db 0ah,0dh,"remainder is $"
datas ends
assume ds:datas,cs:codes
codes segment
start:  mov ax,datas
        mov ds,ax
loo:            display menu
                display choice
                mov ah,01h
                int 21h
                cmp al,31h
                jnz subs
                read
                mov cx,a
                read
                add cx,ax
                mov res,cx
                display str2
                call ndisp
ndisp proc
        mov cx,0000h
        mov ax,res
        mov bx,0ah
        l1:     mov dx,0000h
                div bx
                push dx
                inc cx
                cmp ax,0000h
                jnz l1
        l2:     pop dx
                add dx,30h
                mov ah,02h
                int 21h
                loop l2
ndisp endp
                jmp loo
subs:           cmp al,32h
                jnz mult
                read
                mov cx,a
                read
                cmp cx,a
                jl l3
                sub cx,a
                mov res,cx
                display str2
                call ndisp
                jmp loo
l3:             sub a,cx
                mov cx,a
                mov res,cx
                display str3
                call ndisp
                jmp loo
mult:           cmp al,33h
                jnz divi
                read
                push a
                read
                mov bx,a
                pop ax
                mul bx
                mov res,ax
                display str2
                call ndisp
                jmp loo
divi:           cmp al,34h
                jnz last
                read
                push a
                read
                mov cx,a
                pop ax
                cmp ax,cx
                jl l4
                jmp l5
last:           mov ah,4ch
                int 21h
l4:             mov dx,0000h
                div cx
                mov res,dx
                display str4
                call ndisp
                jmp loo
l5:             mov dx,0000h
                div cx
                mov a,ax
```

```
                    push dx
                    display str5
                    mov cx,0000h
                    mov bx,0ah
                    l6:     mov dx,0000h
                            mov ax,a
                            div bx
                            push dx
                            inc cx
                            cmp ax,0000h
                            jnz l6
                    l7:     pop dx
                            add dx,30h
                            mov ah,02h
                            int 21h
                            loop l7
                    mov dx,00h
                    pop dx
                    mov res,dx
                    display str6
                    call ndisp
                    jmp loo

codes ends
end start
```

Output

```
1.ADD     2.SUB     3.MUL     4.DIV     5.EXIT
Enter your choice:1
Enter no:04
Enter no:05
RESULT IS 9
1.ADD     2.SUB     3.MUL     4.DIV     5.EXIT
Enter your choice:2
Enter no:09
Enter no:03
RESULT IS 6
1.ADD     2.SUB     3.MUL     4.DIV     5.EXIT
Enter your choice:3
Enter no:05
Enter no:06
RESULT IS 30
1.ADD     2.SUB     3.MUL     4.DIV     5.EXIT
Enter your choice:4
Enter no:08
Enter no:02
quotient is 4
remainder is 0
1.ADD     2.SUB     3.MUL     4.DIV     5.EXIT
Enter your choice:5
```