

## 1. DISPLAY MESSAGE

data segment

msg1 db 0ah,0dh,"HAI!"

data ends

code segment

assume cs:code,ds:data

start:

mov ax,data

mov ds,ax

lea dx,msg1

mov ah,09h

int 21h

mov ah,4ch

int 21h

code ends

end start

## 2. 8BIT ADDITION

data segment

```
msg1 db 0ah,0dh,"ENTER FIRST NO:$"  
msg2 db 0ah,0dh,"ENTER SECOND NO:$"  
msg3 db 0ah,0dh,"THE SUM IS:$"
```

data ends

code segment

assume cs:code,ds:data

start:

```
mov ax,data  
mov ds,ax  
lea dx,msg1  
mov ah,09h  
int 21h  
mov ah,01h  
int 21h  
mov bl,al
```

```
lea dx,msg2  
mov ah,09h  
int 21h  
mov ah,01h  
int 21h
```

```
lea dx,msg3  
mov ah,09h  
int 21h  
mov dl,al  
add dl,bl  
sub dl,48  
mov ah,02h  
int 21h
```

```
mov ah,4ch  
int 21h
```

code ends

end start

### 3. 16BIT ADDITION

```
assume cs:code,ds:data
```

```
data segment
```

```
msg1 db 0ah,0dh, "Enter the first number:$"
```

```
msg2 db 0ah,0dh, "Enter the second number:$"
```

```
msg3 db 0ah,0dh, "The sum is: $"
```

```
data ends
```

```
code segment
```

```
start:
```

```
mov ax,data
```

```
mov ds,ax
```

```
lea dx,msg1
```

```
mov ah,09h
```

```
int 21h
```

```
mov ah,01h
```

```
int 21h
```

```
mov bh,al
```

```
mov ah,01h
```

```
int 21h
```

```
mov bl,al
```

```
lea dx,msg2
```

```
mov ah,09h
```

```
int 21h
```

```
mov ah,01h
```

```
int 21h
```

```
mov ch,al
```

```
mov ah,01h
```

```
int 21h
mov cl,al
mov al,bl
mov ah,00h
add al,cl
aaa
add ax,3030h
mov bl,al
mov al,ah
mov ah,00h
add al,bh
add al,ch
aaa
add ax,3030h
mov bh,al
mov cl,ah
lea dx,msg3
mov ah,09h
int 21h
mov dl,cl
mov ah,02h
int 21h
mov dl,bh
mov ah,02h
int 21h
mov dl,bl
mov ah,02h
int 21h
mov ah,4ch
int 21h
```

code ends

end start