

## Program #20

WRITE AN ALP TO READ A NUMBER TO FIND FACTORIAL.

### SOURCE CODE

```
*****  
* Filename    : DIFF.ASM  
* Description : TO READ A NUMBER TO FIND FACTORIAL.  
* Author     : IMMANUAL JOSE  
* Date       : 18/05/2019  
*****
```

Program

DATA SEGMENT

```
NUM1 db 00H  
RESULT db 00H  
msg1 db "Enter number: $"  
msg3 db " Factorial is: $"
```

DATA ENDS

CODE SEGMENT

ASSUME CS:CODE,DS:DATA

START:MOV AX,DATA

```
MOV DS,AX  
LEA DX,msg1  
MOV AH,9  
INT 21H  
MOV AH,1  
INT 21H  
SUB AL,30H  
MOV NUM1,AL  
L1: DEC NUM1  
MUL NUM1  
MOV CL,NUM1  
CMP CL,01  
JNZ L1
```

AAM

```
ADD AH,30H  
ADD AL,30H  
MOV BX,AX  
LEA DX,MSG3  
MOV AH,9  
INT 21H  
MOV AH,2  
MOV DL,BH  
INT 21H  
MOV AH,2
```

```
MOV DL,BL
INT 21H
MOV AH,4CH
INT 21H
CODE ENDS
END START
```

#### RESULT

Input	Output
Enter number : 0003H	Factorial is : 0006H