

```

1  include 'emu8086.inc'
2  .model small
3  .stack 100h
4
5  .data
6      input db "ab123 cd$" ; alphabet = 4, digit = 3
7                          ; will not count space
8  .code
9
10 main proc
11
12     mov ax,@data
13     mov ds,ax
14
15     mov si,0
16     mov cx,0
17     mov dx,0
18
19     l1:
20         mov al,input[si]
21
22         cmp al,'$'
23         jz end
24
25         inc si
26
27         cmp al,'A'
28         ja alphabet ;above 'A', there's no chance of having a digit
29         jb digit    ;below 'A', there's no chance of having a alphabet
30
31
32     alphabet:
33         inc cx
34         jmp l1
35
36     digit:
37         cmp al,20h ; for avoiding space
38         jz l1
39         inc dx
40         jmp l1
41
42         ; for showing output
43     end:
44         mov ax,cx
45         CALL PTHIS
46         db 13, 10, 'Alphabet : ', 0
47         CALL PRINT_NUM
48
49         mov ax,dx
50         CALL PTHIS
51         db 13, 10, 'Digit : ', 0
52         CALL PRINT_NUM
53
54         DEFINE_PRINT_NUM
55         DEFINE_PRINT_NUM_UN
56         DEFINE_PTHIS
57
58     hlt
59
60
61 endp main
62 end main

```