

**Note for all questions:** You can make as many memory variables, subroutines as you need.  
**Must read all the manual before starting.**

### ACTIVITY 1:

Write a program that prints and prints the following messages: one message per keypress.

```
'msg1: Hi! I am YourName.'  
'msg2: I am YourMode(Happy, Sad, etc).'  
'msg3: I Study at FAST.'  
'msg4: My Roll No is YourRoll#.'
```

Expected output after 4 key presses



### ACTIVITY 2:

```
[org 0x0100]  
jmp code  
w equ 70      ; width offset  
x equ 50      ; starting x coordinate of line  
y equ 100     ; starting y coordinate of line  
c equ 60      ; color  
code: mov ah, 0  
      mov al, 13h  
      int 10h  
; draw diagonal 11:  
      mov cx, x  
      mov dx, y  
      mov al, c  
u1:   inc dx  
      mov ah, 0ch ; put pixel
```

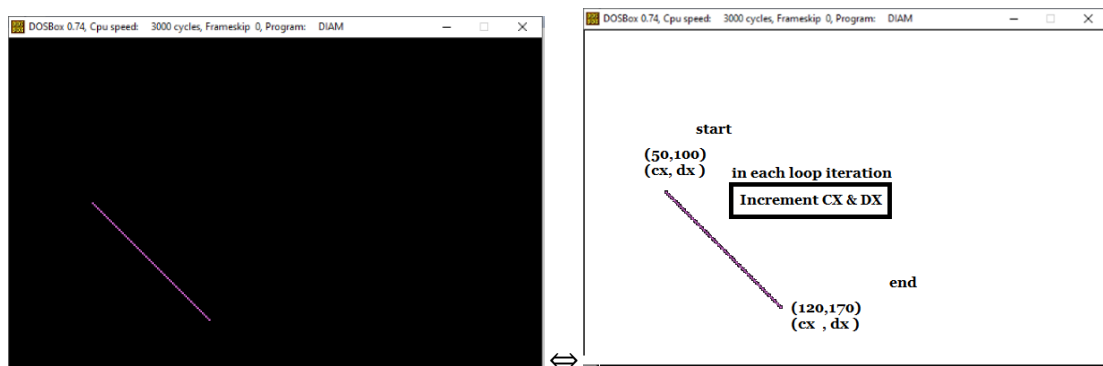
```

int 10h
inc cx
cmp cx, x+w
jbe u1
;wait for keypress
mov ah,00
int 16h
mov ax, 0x4c00
int 21h

```

**Given:**

Start with given  $(x, y) = (50, 100)$  and in every loop iteration increment both Cx and Dx to reach  $(x + w, y + w) = (120, 170)$ .



**Required:**

Similarly, you need to draw 4 lines as above satisfying the coordinates and increment or decrement as per requirement of the line as shown below.

