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**ICS 312**  
**Quiz Solution #5**  
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**Video Text Program Code**

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**Question:** Draw a large red triangle (color code 4) in the text mode.

**Answer:** ;; This program draws a large red triangle (color code 4) in the text mode.

```
.model    small
.stack   100
.data
counter db    10
.code
prog  proc
      mov     ax, @data
      mov     ds, ax
      mov     ah, 0h           ; clear up screen
      mov     al, 3h
      int     10h
      mov     ah, 2h           ; cursor function
      mov     dl, 40           ; column 40
      mov     dh, 10           ; row 10
      mov     bh, 0           ; page 0
      int     10h
right:
      cmp     [counter], 0     ; draw 10 '*'s on the right line
      je     done_right
      dec     [counter]       ; decrement loop counter
      mov     ah, 9h           ; display
      mov     cx, 1           ; draw one at a time
      mov     bl, 4           ; color attribute code
      mov     al, '*'         ; draw '*'s
      mov     bh, 0           ; page 0
      int     10h
      inc     dl               ; go to the next column
      inc     dh               ; go to the next row
      mov     ah, 2h           ; cursor function
      mov     bh, 0           ; page 0
      int     10h
      jmp     right
```

```

done_right:
    mov     ah, 2h          ; cursor function
    mov     dl, 40         ; column 40
    mov     dh, 10        ; row 10
    mov     bh, 0         ; page 0
    int     10h

left:
    cmp     [counter], 10  ; draw 10 '*'s on thr left line
    je     done_left
    inc     [counter]     ; increment loop counter
    mov     ah, 9h        ; display
    mov     cx, 1         ; draw one at a time
    mov     bl, 4         ; color attribute code
    mov     al, '*'       ; draw '*'s
    mov     bh, 0         ; page 0
    int     10h
    dec     dl            ; go to the previous column
    inc     dh            ; go to the next row
    mov     ah, 2h        ; cursor functionf
    mov     bh, 0         ; page 0
    int     10h
    jmp    left

done_left:
    mov     ah, 9h        ; display
    mov     cx, 21        ; draw the bottom line of '*'s
    mov     bl, 4         ; color attribute code
    mov     al, '*'       ; draw '*'s
    mov     bh, 0         ; page 0
    int     10h
    mov     ah, 1         ; wait for a key to be pressed
    int     21h
    mov     ax, 4c00h     ; dos exit fn with return code in al
    int     21h

prog     endp
end      prog

```

