1)DIAMOND

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include irvine32.inc .data

star BYTE "\* ",0 space BYTE " ",0 OuterSpace DWORD 4 innerSpace DWORD 2 rows DWORD 4

OutwardSpace DWORD 2 inwardSpace DWORD 6

downRows DWORD 3

.code main PROC

mov ecx,6 Lfirst:

mov edx, OFFSET Space call writeString LOOP Lfirst

mov edx, OFFSET star call writeString

call crlf

mov ecx, 4 L1:

;outer mov ecx, OuterSpace L2: mov edx, OFFSET space call writeString LOOP L2

;print mov edx, OFFSET star call writeString

;inner Space mov ecx, innerSpace L3: mov edx, OFFSET space call writeString LOOP L3

;print mov edx, OFFSET star call writeString

call crlf

DEC OuterSpace add innerSpace, 2 mov ecx, rows DEC rows

LOOP L1

mov ecx, 3 L4:

;outward mov ecx, OutwardSpace L5: mov edx, OFFSET space call writeString LOOP L5

;print mov edx, OFFSET star call writeString

;inward mov ecx, inwardSpace L6: mov edx, OFFSET space call writeString LOOP L6

;print

mov edx, OFFSET star call writeString call crlf INC OutwardSpace sub inwardSpace , 2

mov ecx, downRows dec downRows

LOOP L4

mov ecx,6 Lsecond:

mov edx, OFFSET Space call writeString LOOP Lsecond

mov edx, OFFSET star call writeString

exit main ENDP END main

\* \*  
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include irvine32.inc .data

star BYTE "\*",0 space BYTE " ",0

countSp DWORD 1 countSt DWORD 4 rows DWORD 4

.code main PROC

mov ecx, 4 L1:

;space mov ecx, countSp L2: mov edx, OFFSET space call writeString LOOP L2

;stars mov ecx, countSt L3: mov edx, OFFSET star call writeString LOOP L3 call crlf inc countsp dec countst

mov ecx, rows  
dec rows

LOOP L1

exit main ENDP END main

* \*
* \*

include irvine32.inc .data

countMiddle DWORD 2 count DWORD 0 counter DWORD 4 space BYTE " ",0 star BYTE "\* ",0

.code main PROC

mov ecx, 4 L1:

mov edx, OFFSET star call writeString LOOP L1 call crlf

mov ecx, countMiddle

L2: mov edx, OFFSET star call writeString

mov ecx, 2  
L3:  
 mov edx, OFFSET space  
 call writeString  
  
LOOP L3  
  
 mov edx, OFFSET star  
 call writeString  
   
 call crlf  
 mov ecx, countMiddle  
 DEC countMiddle

LOOP L2

mov ecx, 4 L4: mov edx, OFFSET star call writeString LOOP L4

exit main ENDP END main

;Pattern

Include irvine32.inc .data count DWORD 4 star DWORD 1 count1 DWORD 3 star1 DWORD 3 mystr BYTE "\* ",0 .code main PROC mov ecx, 4

L1:

mov ecx, star mov edx, OFFSET mystr L2: call writeString LOOP L2

mov ecx, count  
 DEC count  
 call crlf  
 inc star

LOOP L1

mov ecx, count1 L3:

mov ecx, star1 mov edx, OFFSET mystr

L4: call writeString LOOP L4

call crlf DEC star1

mov ecx, count1 DEC count1

LOOP L3

ex: exit main ENDP END main

1. PYRAMID

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55555 7777777

include irvine32.inc .data count DWORD 4 count1 DWORD 1 mystr1 BYTE " ", 0

.code main PROC mov ecx, count

mov ebx, count

L1:

mov edx, OFFSET mystr1   
mov esi, ebx

L2: ;Space call writeString

dec esi

cmp esi, 0

jnz L2

;numbers  
mov eax, count1   
mov ecx, count1

L3: call writeDec

loop L3

call crlf  
sub ebx, 1   
cmp ebx, 0   
jle triangle   
  
add count1, 2   
mov ecx, count   
  
jmp L1

triangle: exit

main ENDP END main

1. DOWNWARD ARROW8888 8888 8888 8888

9999999 99999 999 9

;6) PATTERN Arrow Downward

INCLUDE Irvine32.inc

.data count1 DWORD 4 count DWORD 7 mystr1 byte " ",0

.code main PROC

mov ecx,4 mov eax,8

L1:

call crlf mov edx,offset mystr1 call writestring mov edx, OFFSET mystr1 call writeString mov ebx,ecx mov ecx,count1

L2: call writedec ;upper straight Part loop L2 MOV ecx,ebx LOOP L1

mov eax,9   
mov ecx,4   
mov ebx,1  
  
; lower triangle

L3: call crlf

mov edx,offset mystr1

mov esi,ebx

L4: call writestring

dec esi cmp esi, 0 jg L4

mov edx,9   
mov ecx,count

L5: call writedec

loop L5

add ebx,1   
sub count,2   
cmp count,0   
jle triangle   
mov ecx,4

LOOP L3

triangle: exit

main ENDP END main

1. Right Traingel

Include irvine32.inc .data

msg BYTE '\*',0 loop1 DWORD ? X BYTE ? count DWORD 1

.code main PROC

mov eax, 4 ;number of rows mov ecx, eax

L1:

mov loop1 , ecx mov ecx, count

L2: mov edx , OFFSET msg call writestring LOOP L2

inc count mov ecx, loop1 call crlf

LOOP L1

exit main ENDP END main