

## CSE 331L / EEE 332L: (Lab 4),

Section: 7 & 8, Fall 2019

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### Conditional Jumps

Signed	Unsigned	Single-flag
<b>JE/JZ</b> Jump Equal or Jump Zero <b>JNE/JNZ</b> Jump not Equal or Jump Not Zero <b>JG/JNLE</b> Jump Greater or Jump Not Less/Equal <b>JGE/JNL</b> Jump Greater/Equal or Jump Not Less <b>JL/JNGE</b> Jump Less or Jump Not Greater/Equal <b>JLE/JNG</b> Jump Less/Equal or Jump Not Greater	<b>JE/JZ</b> Jump Equal or Jump Zero <b>JNE/JNZ</b> Jump not Equal or Jump Not Zero <b>JA/JNBE</b> Jump Above or Jump Not Below/Equal <b>JAЕ/JNB</b> Jump Above/Equal or Jump Not Below <b>JB/JNAE</b> Jump Below or Jump Not Above/Equal <b>JBE/JNA</b> Jump Below/Equal or Jump Not Above	<b>JXCZ</b> Jump if CX is Zero <b>JC</b> Jump If Carry <b>JNC</b> Jump If No Carry <b>JO</b> Jump If Overflow <b>JNO</b> Jump If No Overflow <b>JP/JPE</b> Jump Parity or Jump Parity Even <b>JNP/JPO</b> Jump No Parity or Jump Parity Odd <b>JS</b> Jump Sign (negative value) <b>JNS</b> Jump No Sign (positive value) SF

### Examples

<b>1. print the first five characters of ascii table</b> ORG 100H .MODEL SMALL .STACK 100H .CODE MAIN PROC MOV AH, 2 MOV CX, 5 MOV DL, 0  PRINT_LOOP: INT 21H INC DL DEC CX	<b>2. Output the greater number</b> ORG 100H .MODEL SMALL .STACK 100H .CODE MAIN PROC MOV AH, 1 INT 21H MOV BH, AL INT 21H MOV CH, AL  CMP BH, CH JA PRINT
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<b>JNZ PRINT_LOOP</b>  EXIT: MOV AH, 4CH INT 21H  MAIN ENDP END MAIN	MOV AH, 2 MOV DL, CH INT 21H JMP EXIT  PRINT: MOV AH, 2 MOV DL, BH INT 21H JMP EXIT  EXIT: MOV AH, 4CH INT 21H MAIN ENDP END MAIN
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**Example: if AL contains 1 or 3, display “o” if AL contains 2 or 4, display “e”.**

<b>1. if AL contains 1 or 3, display “o” if AL contains 2 or 4, display “e”.</b> MOV AH, 1 INT 21H  CMP AL, 31H JE ODD CMP AL, 33H JE ODD  CMP AL, 32H JE EVEN CMP AL, 34H JE EVEN  ODD: MOV DL, 'O' JMP DISPLAY EVEN:	<b>2. Read a character and check if it is uppercase.</b> ORG 100H .DATA MSG1 DB " IS UPPERCASE LETTER\$" MSG2 DB " IS NOT UPPERCASE\$" .CODE MOV AX, @DATA MOV DS, AX  MOV AH, 1 INT 21H  MOV AH, 9  ;CHECK IF AL>='A' AND AL<='Z' CMP AL, 'A' JL DISPLAY
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MOV DL, 'E' JMP DISPLAY  DISPLAY: MOV AH, 2 INT 21H	CMP AL, 'Z' JG DISPLAY  ;ELSE LEA DX, MSG1 INT 21H JMP END  ;THEN DISPLAY: LEA DX, MSG2 INT 21H JMP END  END: MOV AH, 4CH INT 21H
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## Loop

### 1. print the first five characters of ascii table

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ORG 100H
.MODEL SMALL
.STACK 100H
.CODE
MAIN PROC
    MOV AH, 2
    MOV CX, 5
    MOV DL, 0

    PRINT_LOOP:
        INT 21H
        INC DL
        LOOP PRINT_LOOP

    EXIT:
    MOV AH, 4CH
    INT 21H

```

MAIN ENDP END MAIN
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## Task

1. Read a character, check if it is 'a' or 'A'. if yes, print a message "the character: a" or "the character: A"
2. Write a count-loop that will print the following shape

A 10x10 grid of asterisks, representing a square lattice of points.