**;Write a program to find the sum of the following series up to the terms specified by the user and display the result in decimal format. (also try to display the sum in Hex format) 2 x 4 + 3 x 6 + ... to n terms**

**TITLE SUM FROM 1 TO N**

**.MODEL SMALL**

**.DATA**

**STRLEN DB 8**

**STRSZ DB ?**

**STR DB 9 DUP('$')**

**NUM DW 0**

**SUM DW 0**

**BASE DW 10**

**BASEH DW 10H**

**.STACK**

**.CODE**

**MAIN PROC FAR**

**MOV AX, @DATA**

**MOV DS, AX**

**;; GETTING THE NUMBER**

**LEA DX, STRLEN**

**MOV AH, 0AH**

**INT 21H**

**;; CONVERTING TO NUMBER**

**MOV CX, 00**

**MOV CL, STRSZ**

**LEA DI, STR**

**MOV AX, 00**

**L1: MOV BL, [DI]**

**CMP BL, '0'**

**JB BRK**

**CMP BL, '9'**

**JA BRK**

**;; CONVERTING TO NUMBER**

**AND BL, 0FH**

**MUL BASE**

**ADD AX, BX**

**INC DI**

**LOOP L1**

**BRK: MOV NUM, AX**

**;; CALCULATING THE SUM**

**MOV CX, 2**

**MOV BX, 2**

**L2: MOV AX, CX**

**MUL AX**

**MUL BX**

**ADD SUM, AX**

**CMP CX, NUM**

**INC CX**

**JBE L2**

**;; NEW LINE CHARACTER**

**MOV AH, 02H**

**MOV DL, 0AH**

**INT 21H**

**;; DISPLAYING IN HEX**

**MOV AX, SUM**

**MOV CX, 4**

**L4: XOR DX, DX**

**MUL BASEH**

**MOV BX, AX**

**CMP DX, 10**

**JAE ALPHA**

**OR DL, 30H**

**JMP DISP**

**ALPHA: ADD DL, 55**

**DISP: MOV AH, 02H**

**INT 21H**

**MOV AX, BX**

**LOOP L4**

**;; CONVERTING TO DECIMAL**

**MOV AX, SUM**

**MOV CX, 00**

**MOV BX, 10**

**L3: MOV DX, 00**

**INC CX**

**DIV BX**

**CMP AX, 00**

**PUSH DX**

**JG L3**

**;; NEW LINE CHARACTER**

**MOV AH, 02H**

**MOV DL, 0AH**

**INT 21H**

**;; PRINTING IN DECIMAL**

**DIS: POP DX**

**OR DX, 30H**

**MOV AH, 02H**

**INT 21H**

**LOOP DIS**

**;; ENDING PROGRAM**

**MOV AH, 4CH**

**INT 21H**

**MAIN ENDP**

**END MAIN**