.model small

.stack 100h

.data

lf equ 0ah

cr equ 0dh

str db "11011","$"

dummy dw ?

count db 2

.code

main proc

mov ax,@data

mov ds,ax

mov ax,0

add al,count

lea di,str

mov cx,'$'

push cx

l1:mov ax,[di]

cmp ax,'$'

je l2

push ax

mov dx,ax

;mov ah,02h

;int 21h

inc di

jmp l1

l2 :mov cx,2

mov ax,1

dec count

tempLabel:

mov dx,0

cmp count,0

jle templabelEnd

mul cx

dec count

jmp tempLabel

tempLabelEnd:

mov cx,ax

mov dx,0

mov di,2

mov si,0

mov cx,1

label1 :

pop bx

mov ax,cx

mov bp,ax ;store ax temp while we mul cx using ax

mov ax,cx

mov dx,0

mul di

mov cx,ax ;move the doubled cx back to cx from ax

mov ax,bp ;restore ax

cmp bx,'$'

je done1

mov bh,0h

sub bx,30h

mul bx

add si,ax

jmp label1

done1 :

mov cx,'$'

push cx

mov cx,10

mov ax,si

mov bx,ax

label2:

mov ax,bx

cmp ax,0

jle done2

mov cx,10

mov dx,0

div cx

mov cx,2

mov bx,ax

mov ax,dx

mov count,4

label3:

cmp count,0

jle label2

dec count

mov dx,0

div cx

add dx,30h

push dx

jmp label3

done2 :

mov dx,0

label4:

pop bx

cmp bx,'$'

je endnow

mov dx,bx

mov ah,02h

int 21h

jmp label4

endnow:

mov ah,4ch

int 21h

main endp

end main