ASSEMBLY TASK

[Document subtitle]

[DATE]

[COMPANY NAME]
[Company address]

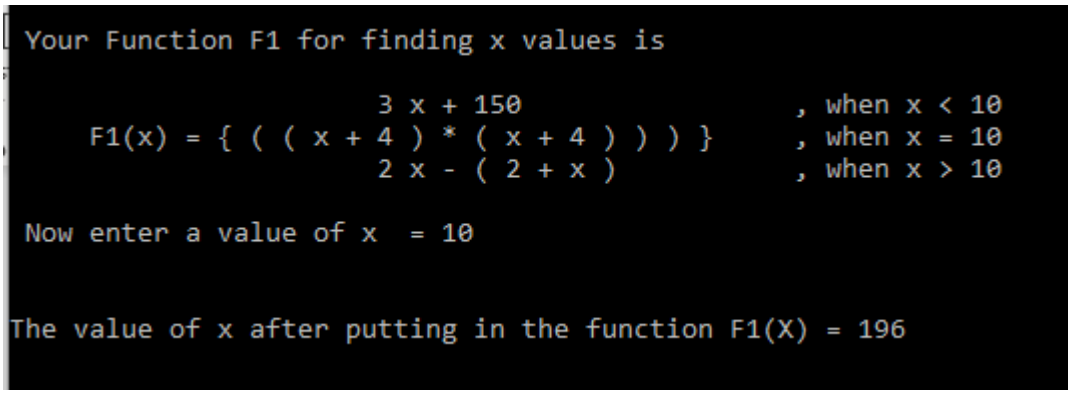
F1 FUNCTION

CODE

```
INCLUDE Irvine32.inc

.data

string db  " Your Function F1 for finding x values is ",0                          ;
using these string to define the struncture of F1 Function
string1 db "                        3 x + 150                 , when x < 10",0     ;
using these string to define the struncture of F1 Function
string2 db "     F1(x) = { ( ( x + 4 ) * ( x + 4 ) ) ) }      , when x = 10",0     ;
using these string to define the struncture of F1 Function
string3 db "                        2 x - ( 2 + x )           , when x > 10",0     ;
using these string to define the struncture of F1 Function
string4 db " Now enter a value of x  = " , 0                                       ;
using this string to make the user to tell enter a value of x
string5 db "The value of x after putting in the function F1(X) = ",0               ;
After finding the final result displaying the string

var1 dword ?
.code

main PROC

call crlf
call crlf
mov edx,offset string                ; giving the offset of the string
call writestring
call crlf
call crlf
mov edx,offset string1               ; giving the offset of the string
call writestring
call crlf
mov edx,offset string2              ; giving the offset of the string
call writestring
call crlf
mov edx,offset string3              ; giving the offset of the string
call writestring
call crlf
call crlf
mov edx,offset string4             ; giving the offset of the string
call writestring
mov eax,0
call readint                       ; Taking an input from the user
mov var1,0
mov var1,eax

cmp eax,10
jE  EQUALCONDITION              ; checking the x = 10 condition
JL  LESSERCONDITION             ; checking the x < 10 condition
JG  GREATERCONDITION           ; checking the x > 10 condition
```

```
GREATERCONDITION:             ; giving if  x > 10  use   3 x + 150
mov eax,3
mov ebx,var1
mul ebx
add eax,150

mov edx,offset string5
call crlf
call crlf
call writestring
call writedec          ; printing the value of the function
call crlf
call crlf

jmp exiting

EQUALCONDITION:             ;  giving if  x = 10  use   ( ( x + 4 ) * ( x + 4 ) ) )

mov eax,var1
add eax,4
mov ebx,eax
mul ebx
mov edx,offset string5
call crlf
call crlf
call writestring
call writedec        ; printing the value of the function
call crlf
call crlf

jmp exiting

LESSERCONDITION:        ; giving if x < 10 use 2 x - ( 2 + x )
mov ebx,0
mov ebx,eax
mov eax,2
mul ebx
mov ebx,var1
add ebx,2
sub eax,ebx

mov edx,offset string5
call crlf
call crlf
call writestring
call writeint        ; printing the value of the function
call crlf
call crlf

exiting:                ; exiting the program
exit
main ENDP
END main
```

OUTPUT



F2 FUNCTION

CODE

```
INCLUDE Irvine32.inc

.data

string1 db "Your Second Function F2 for finding x value is ",0 ; using these string to
define the struncture of F1 Function
string2 db  "             x                                          ",0 ;using these
string to define the struncture of F1 Function
string3 db "     F2(x) = Sumof 3(i)^2 - i , when x belongsto {-5,.....10) belongsto Z ",0
; using these string to define the struncture of F1 Function
string4 db "            i=-5                                       ",0
string5 db "The value of x after putting in the function F2(X) that needed to statisfy
the function  = ",0 ; using this string to tell the user to enter a value in the range of
the function
string6 db "Your input is wrong value does not lies in the function",0  ; string if does
not lie in the range
string7 db "The value of x after putting in the function F2(X) = " ,0 ; string for the
F2(x) value printing
var1 dword ?
var2 dword ?
answer dword ?
.code

main PROC
mov edx,offset string1     ; giving the offset of the string
call writestring
call crlf
call crlf
mov edx,offset string2      ; giving the offset of the strin
```

```
call writestring
call crlf
mov edx,offset string3       ; giving the offset of the strin
call writestring
call crlf
mov edx,offset string4       ; giving the offset of the strin
call writestring
call crlf
call crlf
mov edx,offset string5        ; giving the offset of the strin
call writestring
mov eax,0
call readint


mov var1,eax
cmp eax,10
jg Exiting          ; going to exiting if it does not lie in the range
cmp eax,-5
jl Exiting          ; going to exiting if it does not lie in the range
add var1,1
mov var2,-5
L1:                        ; using loop to determine the function
mov eax,var1
cmp var2,eax
je Equalling
mov eax,var2
mov ebx,var2
mul ebx
mov ebx,3
mul ebx
mov ebx,var2
sub eax,ebx
add answer,eax
inc var2
loop L1

Exiting:                   ; Here we give the offset of the wrong input string
mov edx,offset string6
call crlf
call crlf
call writestring
call crlf
call crlf
jmp exiting2

Equalling:               ; if given function input and value of i becomes equal then
prints the answer
mov eax,answer
call crlf
call crlf
mov edx,offset string7
call writestring
call writeint
call crlf
call crlf

exiting2:                    ; Finally exiting the program
```

```
exit
main ENDP
END main
```

OUTPUT

```
Your Second Function F2 for finding x value is

              x
     F2(x) = Sumof 3(i)^2 - i , when x belongsto {-5,.....10) belongsto Z
             i=-5

The value of x after putting in the function F2(X) that needed to statisfy the function  = 5


The value of x after putting in the function F2(X) = +330
```