```
include irvine32.inc



.data
        fact byte 1
        num byte 6
        ;power funtion
        a DWORD 2
        b DWORD 3

        ;swap funtion
        val01 btye 2
         val02 byte 5
.code
main proc


        ;call factorial
        ;call writedec
        ;call crlf


        ;power funtion

        call power
        call writedec
        call crlf
```

```
        ;swap funtion
        ;call swap
        ;call writedec
        ;call crlf


exit
main endp

        factorial proc
        mov ecx,0
        movzx ecx, num
        xor eax,eax
        mov al,fact

l1:
        mul fact
        inc fact

Loop l1
        ret
        factorial endp


        power proc
        xor eax , eax
        xor ebx,0
        mov ecx,b
        mov eax,1
```

```
        mov ebx,a



        l1:
        mul ebx

loop l1
        ret
        power endp

        sawp proc



        xor eax,eax
                xor ebx,ebx
                mov al, val1
                mov bl,val2
                xchg al,bl
                ret
                sawp endp
end main



;#########################################################################################
#####################
include irvine32.inc
.data
```

```
        msg byte "Enter the Number : ",0dh,0
        arry01 dword 5 dup(0)
        arry02 dword 5 dup(0)
        arry03 dword 5 dup(0)
.code
main PROC

        mov esi ,0
        mov ecx,5

l1:
        mov edx,offset msg
        call writestring
        call crlf
        call readint
        mov arry01[esi] ,eax
        inc esi
loop l1
        xor eax,eax

        mov ecx,5
l2:
        mov edx,offset msg
        call writestring
        call crlf
        call readint
        mov arry02[esi],eax
        inc esi
loop l2
```

```
        mov ecx,5
        mov esi,0

l3:


        mov eax,arry02[esi]
        mov ebx,arry01[esi]
        add eax,ebx
        mov arry03[esi],eax
        inc esi
loop l3
        mov eax,arry03[0]
        call writedec
        call crlf


        exit

main ENDP



END main

;#########################################################################################
##########33333

include irvine32.inc

.data

        array dword 3 dup(0)
```

```
        msg1 byte "Enter the first Name  : " ,0
        msg2 byte "Enter the Middle Name  : " ,0
        msg3 byte "Enter the last Name  : ",0
        input dword ?

.code

main proc
        call person
        call writestring
        call crlf

        exit
main endp

        person proc


        call readstring
        mov array[esi],eax
        inc esi

        mov edx, offset msg2
        call writestring
        call crlf

        call readstring
        mov array[esi],eax
        inc esi
```

```
        mov edx, offset msg3
        call writestring
        call crlf

        call readstring
        mov array[esi],eax
        inc esi


        mov eax, array[2]
        call writestring
        call crlf


        mov eax, arry[0]
        call writedec
        call crlf


        mov eax, array[1]
        call writestrin
        call crlf

        ret
        person endp
end main
```

```
        ;#########################################################################################
                                        ;Question Number 5
include irvine32.inc

.data
        arry byte 10 dup(0)
        msg byte "Ente the Number : " ,0
.code
main proc
        call fun
        call writedec
        call crlf



        exit
main endp
        fun proc
        mov edx, offset msg
        call writestring
        call crlf
        mov ecx, 2
        mov esi,0

l1:
        call readint
        mov arry[esi],al
        movzx ebx,arry[esi]
        push ebx
```

```
        inc esi
loop l1
        xor esi,esi
        mov ecx ,10

l2:
        pop eax
        mov arry[esi],al
        inc esi
loop l2

fun endp
        ret

end main
```