

```
TITLE Chapter 3 Exercise 2
```

```
(ch03_02.asm)
```

```
Comment !
```

```
Description: Write a program that contains a definition  
of each data type listed in Section 3.4. Initialize each  
variable to a value that is consistent with its data type.
```

```
** For best appearance, set your editor's Tab indent size to 5 **  
!
```

```
INCLUDE Irvine32.inc
```

```
.data
```

```
var1 BYTE 10h
```

```
var2 SBYTE -14
```

```
var3 WORD 2000h
```

```
var4 SWORD +2345
```

```
var5 DWORD 12345678h
```

```
var6 SDWORD -2342423
```

```
var7 FWORD 0
```

```
var8 QWORD 1234567812345678h
```

```
var9 TBYTE 1000000000123456789Ah
```

```
var10 REAL4 -1.25
```

```
var11 REAL8 3.2E+100
```

```
var12 REAL10 -6.223424E-2343
```

```
.code
```

```
main PROC
```

```
    exit
```

```
main ENDP
```

```
END main
```

TITLE Chapter 3 Exercise 3

(ch03\_03.asm)

Comment !

Description: Write a program that defines symbolic constants for all of the days of the week. Create an array variable that uses the symbols as initializers.

\*\* For best appearance, set your editor's Tab indent size to 5 \*\*  
!

INCLUDE Irvine32.inc

Sunday = 0  
Monday = 1  
Tuesday = 2  
Wednesday = 3  
Thursday = 4  
Friday = 5  
Saturday = 6

.data

myDays BYTE Sunday, Monday, Tuesday, Wednesday,  
Thursday, Friday, Saturday

.code

main PROC

    exit

main ENDP

END main

TITLE Chapter 4 Exercise 4

(ch04\_04.asm)

Comment !

Description: Write a program that defines symbolic names for several string literals (characters between quotes). Use each symbolic name in a variable definition.

\*\* For best appearance, set your editor's Tab indent size to 5 \*\*  
!

INCLUDE Irvine32.inc

sym1 TEXTEQU <"System failure">  
sym2 TEXTEQU <"Press any key to continue...">  
sym3 TEXTEQU <"Insufficient user training">  
sym4 TEXTEQU <"Please re-start the system">

.data

msg1 BYTE sym1  
msg2 BYTE sym2  
msg3 BYTE sym3  
msg4 BYTE sym4

.code

main PROC

    exit  
main ENDP  
END main

TITLE Chapter 3 Exercise 1

(ch03\_01.asm)

Comment !

Description: Using the AddSub program from Section 3.2 as a reference, write a program that subtracts three 16-bit integers using only registers. Insert a call DumpRegs statement to display the register values.

\*\* For best appearance, set your editor's Tab indent size to 5 \*\*  
!

INCLUDE Irvine32.inc

.code

main PROC

    mov  ax,4000h

    mov  bx,1000h

    mov  cx,1500h

    sub  ax,bx

    sub  ax,cx

    call DumpRegs

    exit

main ENDP

END main