ACTIVITY 6

DATA DEFINITION STATEMENTS

1. Write a data definition statement for an array of 16-bit signed integers containing the values –2, –1, 0, 1, and 32000.

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2. Write a data definition statement for an array of one hundred 64-bit integers, all initially containing the value 5.

   _____

3. Write a data definition statement for a 32-bit unsigned integer whose initial value is undefined.

   _____

4. Storing 262,144 integers that are 32 bits each requires 1 megabyte (1,048,576 bytes) of memory. How can you allocate space for this many integers in your program's data segment without adding a megabyte of size to your .exe file?

   _____

5. .data
   BYTE 254, 255
   SBYTE –2, –1
   DWORD 12345678h
   WORD 9ABCh

   How many bytes of memory are required to store the above data? _____

   How will this data be stored in memory as a sequence of bytes? Write the byte values in *hexadecimal*, starting from the byte at the lowest memory address.

   _____

6. .data
   BYTE 10, 11, 'A'
   SWORD –1
   DWORD 40000
   SWORD –437

   How many bytes of memory are required to store the above data? _____

   How will this data be stored in memory as a sequence of bytes? Write the byte values in *hexadecimal*, starting from the byte at the lowest memory address.

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