**Page 21, #1-16**

1. A bit (short for binary digit) is the smallest unit of data in a computer.
2. A group of binary digits or bits (usually eight) operated on as a unit.

**Convert the following number to their decimal equivalents:**

1. 10001110 in binary equates to 128+8+4+2 = 142
2. 01010101 in binary equates to 64+16+4+1 = 85
3. 00010000 in binary equates to 16
4. 11111111 in binary equates to 128+64+32+16+8+4+2+1 = 255
5. 10101010 in binary equates to 128+32+8+2 = 170
6. 00011011 in binary equates to 16+8+2+1 = 27
7. 00101101 in binary equates to 32+8+4+1 = 45

**Convert the following decimal numbers to a byte (8 bits):**

1. 200  in decimal equates to 128+64+8 or 11001000 in binary
2. 144 in decimal equates to 128+16 or 10010000 in binary
3. 111 in decimal equates to 64+32+8+4+2+1 or 01101111 in binary
4. 28 in decimal equates to 16+8+4 or 00011100 in binary
5. 92 in decimal equates to 64+16+8+4 or 01011100 in binary
6. 65 in decimal equates to 64+1 or 01000001 in binary
7. 9 in decimal equates to 8+1 or 00001001 in binary

* **Exercises on page 25, #1-6**

1. A program is a list of instructions (program statements) that the computer executes to perform a given task.
2. Label each language as high-level or low-level language
   1. Visual Basic = high-level
   2. Assembly = low-level
   3. Machine Language = low-level
   4. Java = high-level
3. The differences between a compiled and an interpreted language are interpreted languages are evaluated one line at a time and take longer to run while, reporting errors along the way. Compiled languages required debugging in advance, however once compiled without errors, run faster than interpreted languages.
4. The two main styles of programming are Procedural and Object-Oriented programming.
5. A property is a value assigned to a Visual Basic object or control, such as *ForeColor*. Properties can be set in the Basic code or at design time by using the properties window.
6. An object is a type of user interface element in Visual Basic. Examples: Forms; which will also contain other objects which would be referred to as controls.