**Basic Electricity and Electronics**

**Module Two - Problem Worksheet**

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Convert the decimal number **131** to binary:
2. Convert the binary number **11010101** to decimal:
3. Convert the binary number **11001001** to hexadecimal:
4. Convert the decimal number **758** to hexadecimal:
5. Convert the hexadecimal number **B6A** to decimal:
6. Give the truth table for an inverter:
7. Give the truth table for an OR gate:

8. Give the truth table for an AND gate:

9. Give the truth table for two input (A and B) addition:

1. Draw the schematic symbol on an NPN transistor, label the leads, and indicate the proper polarities for operation:
2. Draw the schematic symbols for the inverter, the OR gate, and the AND gate: