**Chapter Three Homework Problems (Fall 2017)**

**Show labeled work on bottom and back and transfer answers to the blanks in the questions.**

1. Convert 23626 to 16-bit to hexadecimal \_\_\_\_\_\_\_ and binary \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Convert -9744 to 16-bit 2’s complement \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and hexadecimal\_\_\_\_\_\_\_\_\_\_.
3. Convert 1544.28125 to IEEE single precision give answer in hex \_\_\_\_\_\_\_\_\_\_\_  
   (hint .28125 is 9/32)
4. Convert 47.77447 to IEEE single precision give answer in hex \_\_\_\_\_\_\_\_\_\_\_
5. Convert 5.972x1024 to IEEE single precision give answer in hex \_\_\_\_\_\_\_\_\_\_\_  
   (5.972x1024 Kg is the mass of the earth)
6. Convert the 16-bit two’s complement hexadecimal number 03B2 to decimal \_\_\_\_\_\_\_\_\_\_.
7. Convert the 16-bit two’s complement hexadecimal number F74A to decimal \_\_\_\_\_\_\_\_\_\_\_.
8. Convert the IEEE single precision number 594A79EC to decimal \_\_\_\_\_\_\_\_\_\_\_\_.
9. Convert the IEEE single precision number BC009D49 to decimal \_\_\_\_\_\_\_\_\_\_\_\_.

Show labeled below, on the back and on attached extra sheets as needed.