C Language Programming: Homework #6
Assigned on 12/03/2013(Tuesday), Due on 12/10/2013(Tuesday)

1. Write a program that can input a float or double number and print out its bit pattern and vice versa (input a 32-bit or double pattern and output its value).
   Note: you should use the three techniques mentioned in the class:
   (a) an integer pointer to float or double,
   (b) union, and
   (c) bit field
2. Please check:
   1. Is it correct that the value,
      1.175494350822287507968736537222245677818665556772087521508751706278417259454727172851560500000000000000000000000000000000e-38f ,

      is the smallest floating point number as stated in the textbook. If not, what is the smallest floating point number ?
   2. What is the bit pattern of f=0.0
   3. run

   ```
   f1 = 1.17549435082228750796873653722224567781866555
   56772087521508751706278417259454727172851560500000
   00000000000000000000000000e-38f;
   f2 = 1.175494350822287500e-38f;

   if( f1==f2 ) { printf("%100e = %100e", f1, f2); }
   else { printf("%100e != %100e", f1, f2); }
   ```

   Explain the result.