ECE 160   Name: numbase.txt
Lab #1   due: see http://www.ece160.org

NOTE: if a problem cannot be solved indicate why in your answer. Also all numbers in 14-25 are in base 16 (& = bitwise AND, | = bitwise OR, ~ =bitwise compliment, ^ = bitwise XOR). Problems 26-30 are in hex and to be treated as an 8 bit quantity. Be sure to give your answer in the proper base. It is up to you whether you wish to use a calculator to do this sheet...keep in mind that calculator use is NOT allowed on any exams.

1. $110011101|_2 = ? |_{10}$
2. $70|_8 = ? |_{10}$
3. $34|_8 = ? |_{16}$
4. $47|_{10} = ? |_2$
5. $511|_{10} = ? |_{16}$
6. $265|_{10} = ? |_2$
7. $41E|_{16} = ? |_{10}$
8. $FECDBA |_{16} = ? |_8$
9. $10110110|_2 = ? |_{16}$
10. $100010011|_2 = ? |_8$
11. $363|_8 = ? |_2$
12. $1BA|_{16} = ? |_8$
13. $54|_{16} = ? |_2$

Values for 14-25 are in base 16; all answers must be in base 16

14.   2053 & F0F0 = ?
15.   14F7B3 & E780 = ?
16.   FF00 ^ 7FFF = ?
17.   FACE | ~DEED = ?
18.   ACDC | EA7 = ?
19.   ~FF = ? (express in 8 bits, i.e. 2 hex digits)
20   ~10 = ? (express in 8 bits, i.e. 2 hex digits)
21.   63 ^ 63 = ?
22   A ^ 5 = ?
23.   (~FF) ^ A0 = ?
24.   (FADE|7777) ^ (9999) = ?
25.   123 | 66AA & 6655 = ?

Values below are all 8 bits, and in base 16;

26.   C << 3 =
27.   55 << 1 =
28.   1 << 5 =
29.   80 >> 4 =
30.   44 >> 2 =