Seung Jun Baek

1. Prob 1.5 in Textbook. Determine the base of the numbers in each case for the following operations to be correct:
   (a) 14/2=5
   (b) 54/5=13
   (c) 24+17=40
2. Prob 1.9 (a) and (b) in Textbook. Express the following numbers in decimal
   (a) $(10110.0101)_2$
   (b) $(16.5)_{16}$
3. Prob. 1.14 in Textbook. Obtain 1's and 2's complements for the following binary numbers:
   (a) 00010000
   (b) 00000000
   (c) 11011010
   (d) 10101010
   (e) 10000101
   (f) 11111111
4. Prob. 1.18 in Textbook. Perform subtraction on the given unsigned binary numbers using the 2s complement of the subtrahend. Where the result should be negative, find its 2s complement and affix a minus sign.
   (a) 10011 - 10010
   (b) 100010 - 100110
   (c) 1001 - 110101
   (d) 101000 - 10101
5. Prob. 1.19 in Textbook. The following decimal numbers are shown in signmagnitude form: +9,286 and +801. Convert them to signed-10scomplement form and perform the following operations (note that the sum is +10,627 and requires five digits and a sign).
   (a) (+9,286) + (+801)
   (b) (+9,286) + (-801)
   (c) (-9,286) + (+801)
   (d) (-9,286) + (-801)
6. Prob. 1.29 in Textbook Decode the following ASCII code:
   1010011 1110100 1100101 1110110 1100101 0100000 1001010 1101111 1100010 1110011.