Name:

Date:

Class: CS 160

Quiz #3

1. Convert the following numbers to binary. (Four Points)
2. 1810 = **00010010**2
3. 4510 = **00101101**2
4. 19210 = **11000000**2
5. 24610 = **11110110**2
6. Convert the following numbers to two’s complement binary. (Five Points)
7. 510 = **0101**2
8. 310 = **0011**2
9. 710 = **0111**2
10. 010 =**0000**2
11. -610 = **1010**2
12. Convert the following numbers to excess-8 notation binary. (Five Points)
13. 410 = **1100**2
14. -810 = **0000**2
15. -110 = **0111**2
16. 710 = **1111**2
17. 010 = **1000**2

4) Add the following binary numbers using two’s complement (Answers in ***4-bit two’s comp. binary***). (Three Points)

1. 01002 + 00112 = **0111**2
2. 11012 + 01102 = **0011**2
3. 00102 + 11012 = **1111**2

5) Subtract the following binary numbers using two’s complement (Answers in ***4-bit two’s comp. binary***). (Three Points)

1. 01112 – 01012 = **0010**2
2. 11102 – 11102 = **0000**2
3. 10102 – 00102 = **1000**2