Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chemistry 11 Block 3

**A little more Sig Fig Practice...**

1. Give the number of significant digits in each of the following.

a) 0.00230 ..............................\_\_\_\_\_\_\_\_ d) 3.2000 x 10-4 .................................\_\_\_\_\_\_\_\_

b) 3900 000 ............................\_\_\_\_\_\_\_\_ e) 500 020.0 .......................................\_\_\_\_\_\_\_\_

c) 1.002 x 105 ........................\_\_\_\_\_\_\_\_ f) 345 .................................................\_\_\_\_\_\_\_\_

2. Perform the following calculations and round the answers off to the correct number of significant digits as justified by the data.

a) 2.15 x 0.0034 ...............\_\_\_\_\_\_\_\_\_\_\_ f) 8.99 x 103 ÷ 4.600 x 10-8 .........\_\_\_\_\_\_\_\_\_\_\_

b) 0.02 + 344.731 ...........\_\_\_\_\_\_\_\_\_\_\_ g) 89.000 ÷ 1.230 x 102 ...............\_\_\_\_\_\_\_\_\_\_\_

c) 4.555 x 106 ÷ 2 x 10-2 ...\_\_\_\_\_\_\_\_\_\_ h) 98.0076 - 2.19 .......................\_\_\_\_\_\_\_\_\_\_\_

d) (3.63 x 9.02) + 13.923..\_\_\_\_\_\_\_\_\_\_\_ i) 0.000020 x 245.912 .................\_\_\_\_\_\_\_\_\_\_\_

e) 3.213 + 98.37 + 2.619..\_\_\_\_\_\_\_\_\_\_\_ j) 5.002 ÷ 5.21 + 2.31 ÷ 9.225.....\_\_\_\_\_\_\_\_\_\_\_

3. Round the following numbers to 2 significant digits.

a) 2 000 000 .............\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ c) 3.8945 x 1028 ...................\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) 105 000 ................\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ d) 0.000 000 4895 ................\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Answers (don’t look until your done!) …… I mean it! …….No Peeking!**

* 1. 3
  2. 2
  3. 4
  4. 5
  5. 7
  6. 3
  7. 0.0073 or 7.3x10-3
  8. 344.75
  9. 2x108
  10. 46.7
  11. 104.20
  12. 1.95x1011
  13. 0.7236 or 7.236x10-1
  14. 95.82
  15. 0.0049 or 4.9x10-3
  16. 1.210
  17. 2.0x106
  18. 1.1x105 or 110,000
  19. 3.9x1028
  20. 4.9x10-7