

## CHEM 1200 & 1251:

### Significant Figures Practice:

#### Rules:

1. All nonzero digits are significant (1,2,3...) significant
2. Zeros between two nonzero digits are significant (1002)
3. Zeros to the left of the first nonzero digit are NOT significant (00.01- not significant)
4. Zeros at the end of a number have exceptions
  - a. Follow a nonzero number
    - i. Trailing zeros without a decimal present are not significant (2500- No)
    - ii. Trailing zeros with a decimal present are significant (25.00 - Yes)
    - iii. Trailing zeros before an implied decimal point are ambiguous and should be avoided using scientific notation (**2,000** → **2.000 x 10<sup>3</sup>**)

#### Examples:

1. 200 = 1 sig fig (no decimals present, zero insignificant)
2. 32.51
3. 8004
4. 2,100,000
5. 0.005
6. 710.000
7. 0.04110
8. 30.
9.  $2.10 \times 10^3$
10. 82.1074

## Significant Figures Practice Key:

### Examples:

11. 200 = 1 sig fig (no decimals present, zero insignificant)

12. 32.51 = 4 sig fig

13. 8004 = 4 sig fig

14. 2,100,000 = 2 sig fig

15. 0.005 = 1 sig fig

16. 710.000 = 6 sig fig

17. 0.04110 = 4 sig fig

18. 30. = 2 sig fig

19.  $2.10 \times 10^3$  = 3 sig fig

20. 82.1074 = 6 sig fig