**Significant Figures and Scientific Notation – HW 1**

***I. Give the number of significant figures in each.***

1. 967 3 6. 2.700 4 11. 0.0076009 5

2. 967,000 3 7. 304 3 12. 670,000 2

3. 9.67 3 8. 9. 1 13. 0.00872 3

4. 0.00967 3 9. 90 1 14. 8.53x103 3

5. 4050 3 10. 7.805 4

***II. Round each of the following to four significant figures.***

15. 2.16347x105 \_2.163 x 105\_\_\_\_\_\_\_\_\_\_\_\_\_ 17. 7.2513 7.251

16. 4.000574x105 \_\_\_4.001x105 18. 375.6523 375.7

***III. Round each of the following to two significant figures.***

19. 3.512 \_\_\_3.5\_\_\_\_ 21. 2.751x108 \_\_\_\_2.8x108\_\_\_\_

20. 25.631 \_\_\_26\_\_\_\_\_\_\_ 22. 3.9814 x105 \_\_\_4.0x105

***IV. Round each of the following to the nearest whole number.***

23. 56.912 \_\_\_\_57\_\_\_ 25. 0.5182 \_\_\_\_1\_\_\_\_\_

24. 3.4125 \_\_\_\_3\_\_\_\_\_ 26. 112.511 \_\_\_113\_\_\_\_

**V. Round each of the following to the nearest hundredth.**

27. 54.7421 \_\_\_54.74\_\_\_\_ 29. 79.2588 \_\_\_79.26\_\_\_

28. 100.0925 \_\_\_100.09\_\_\_\_\_ 30. 0.9114 \_\_\_\_0.91

**VI. Express each of the following numbers in scientific notation. (Remember to pay attention to zeros. include them if they are significant, do not include them If they are not)**

31. 325 \_\_\_3.25x102\_\_ 36. 0.361 \_\_\_3.61x10-1\_\_\_\_

32. 70 \_\_\_\_7x101\_\_\_\_\_\_ 37. 0.0428 \_\_\_4.28x10-2\_\_\_\_\_\_\_\_

33. 96,400 \_\_\_9.64x104\_\_\_\_\_ 38. 0.00573 \_\_\_5.73x10-3\_\_\_\_\_

34. 5,921 \_\_\_\_5.921x103\_\_\_\_\_\_ 39. 0.0005438 \_\_\_5.438x10-4\_\_\_\_\_\_

35. 6,587,324,000 \_\_\_6.587324x109\_\_\_ 40. 0.00005673 \_\_\_5.673x10-5\_\_\_\_\_\_

**VII. Write each of the following as ordinary numbers. (Watch for significant zeroes)**

41. 3.64 x104 \_\_\_\_36,400\_\_\_\_ 46. 2.97 x10-4 \_\_\_\_\_0.000297\_\_

42. 3.9734 x105 .\_\_\_397,340\_\_\_\_\_\_ 47. 3.88 x10-2 \_\_\_0.0388\_\_\_\_

43. 6.285x103 \_\_\_\_\_6285\_\_\_\_ 48. 5.65 x10-1\_\_\_\_0.565\_\_\_\_\_\_

44. 6.7978x100 \_\_\_\_6.7978\_\_\_\_\_\_ 49. 3.7283 x 10-4 \_\_\_\_0.00037283\_\_\_\_\_

45. 5.8643 x102 \_\_\_586.43\_\_\_\_\_\_ 50. 4.763x10-3 \_\_\_\_0.004763\_\_\_