

Name _____

Section number _____

TA _____

Chem100 Worksheet 1a

Scientific notation, significant figures

Write each number in scientific notation

1. 538.35

2. 1750042

3. 0.00000000045

4. 21.3

Convert these numbers to decimal format.

5. 8.56×10^4

6. 78.4×10^2

7. 5.020×10^5

8. 1.39×10^{-6}

How many significant figures are in each of the following numbers?

8. 22.405 _____

9. 0.6001 _____

10. 600 _____

11. 0.0462 _____

12. 6.022×10^{23} _____

13. 97.740 _____

Round off each number as indicated

14. 0.3948 (round to 2 significant figures) _____

15. 0.4692 (round to 2 significant figures) _____

16. 7329.586 (round to 6 significant figures) _____

17. 899.9 (round to 3 significant figures) _____

18. 0.000105 (round to 2 significant figures) _____

Do the calculations and round to the correct number of significant figures

19. $422.15 + 23.6 + 18.503 =$ _____

20. $50.2 - 0.500 =$ _____

21. $(1.34 \times 10^{15}) \times 6.3$ _____

22. $131.78/19.25$ _____

23. $(3.65 \times 2.10)/(2.1134 \times 42.1)$ _____