Chemistry Significant Figures Name:

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

1) 5.40 \_\_\_\_ 6) 1.2 x 103 \_\_\_\_

2) 210 \_\_\_\_ 7) 0.00120 \_\_\_\_

3) 801.5 \_\_\_\_ 8) 0.0102 \_\_\_\_

4) 1,000 \_\_\_\_ 9) 9.010 x 10-6\_\_\_\_

5) 101.0100 \_\_\_\_ 10) 2,370.0 \_\_\_\_

Round these numbers to 3 significant digits.

1. 1,566,311
2. 2.7651 X 10 -3
3. 84,592
4. 0.0011672
5. 0.07759

*Convert the following to scientific notation:*

16) 45,700 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

17) 0.009 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

18) 23 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

19) 0.861 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

20) 24,212,000 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Complete the following calculations. Use significant figures and appropriate units.

1. 334.54 grams + 198 grams =
2. 84 m/s x 31.221 s =
3. 2.11 x 103 joules / 34 seconds =
4. (6.0010 m – 2.11 m) ÷ 1.6 s =
5. 349 cm + 1.10 cm - 100 cm =
6. 92.2 cm x 293.00 cm =
7. 654 g + 79.5 g =
8. 546 m/s ÷ 97.25 s =
9. 27.31 mL – 0.589 mL =
10. 827 g/mL x 0.01 mL =