**Significant Figures Practice:**

*How many significant figures do the following numbers have?*

1) 1214 \_\_\_\_\_

2) 1.003 \_\_\_\_\_

3) 891 \_\_\_\_\_

4) 12010 \_\_\_\_\_

5) 66010.0 \_\_\_\_\_

6) 1090.0010 \_\_\_\_\_

7) 0.00120 \_\_\_\_\_

8) 3.40 x 104 \_\_\_\_\_

9) 9.0 x 10-3 \_\_\_\_\_

10) 9.010 x 10-2 \_\_\_\_\_

11) 0.00030 \_\_\_\_\_

12) 1020010 \_\_\_\_\_

13) 780. \_\_\_\_\_

14) 1000 \_\_\_\_\_

15) 918.010 \_\_\_\_\_

16) 0.0001 \_\_\_\_\_

17) 0.00390 \_\_\_\_\_

18) 8120 \_\_\_\_\_

19) 7.991 x 10-10\_\_\_\_\_

20) 72 \_\_\_\_\_\_

**Scientific Notation Practice:**

*Convert the following numbers into scientific notation:*

1) 3,400 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2) 0.000023 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3) 101,000 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4) 0.010 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5) 45.01 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6) 1,000,000 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7) 0.00671 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8) 4.50 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Convert the following numbers into standard notation:*

9) 2.30 x 104 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10) 1.76 x 10-3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11) 1.901 x 10-7 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12) 8.65 x 10-1 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13) 9.11 x 103 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

14) 5.40 x 101 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15) 1.76 x 100 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

16) 7.4 x 10-5 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Round each calculation to correct # of sig figs. Write all answers in scientific notation.

1. 22.54 grams / 19 mL = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. 39.1 x 2.1 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. 4.11 x 103 joules / 54 seconds = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. (23 x 0.25 x 340 / (44 x 0.431) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. 34 cm x 1.10 cm x 100.1 cm = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. 350 meters / 114 seconds = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. 298.01 x 34.112 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. 84 m/s x 31.221 s = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. (120.00 x 556) / (3.5 x 0.0021) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. Calculate the average rate of speed in km per min (km/min) when a car travels 105.1 km in 89.2 min.