**Significant Figures**

**Review:**

How many significant figures are in:

5.430

0.0043

760400

320.

15.0

1.54×103

7.55×10-7

1.10×102

**Multiplying and Dividing Numbers**

When combining measurements into a result, you can only be as confident in your result as you are in your measurements. Your result will be as certain as your LEAST certain measurement.

* Use the same number of significant figures in your results as the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ number of significant figures that are multiplying or dividing.

Examples:

34.03 ×1400 =

6.332×10-4 × -3.21×102 =

145.04 ÷ 1.5 =

1.6×104 ÷ 1.24×102 =

**Adding and Subtracting Numbers**

When adding or subtracting measurements, the smallest place value (ones, tens, tenths, etc.) that both values have in common will be the last digit used as a significant figure.

Examples:

530.007 + 23.1 =

1.73×104 + 55.6 =

76100 – 5360.82 =

5.53×106 – 4.32×105 =

**When to Round**

Rounding only occurs at the VERY end of any set of operations. Keep all figures and consider the number of significant figures there should be at the end.

Examples:

(5.553 × 21.213) ÷ (3.38 × 1.5) =

3.04 × 1.2 + 16.1 =

(1.332 – 14.32) × 15.8 =