CONCEPT: SIGNIFICANT FIGURES: IN CALCULATIONS

Multiplication and Division

● When either multiplying or dividing different numbers the final answer will contain the least _____.

EXAMPLE: Perform the following calculation to the right number of sig figs:

$(3.16) \times (0.003027) \times (5.7 \times 10^{-3})$

Addition and Subtraction

● When either adding or subtracting different numbers the final answer will contain the least _____.

EXAMPLE: Perform the following calculation to the right number of sig figs:

$402.09 - 212.2 + 2.671$

Mixed Operations

● When dealing with a mixture multiplication, division, addition and subtraction we must follow the order of operations.

□ **PEMDAS** stands for _____, _____, _____, & _____.

EXAMPLE: Perform the following calculation to the right number of sig figs:

$$\frac{[(1.89 \times 10^{6}) \cdot (3.005)] \cdot (5.21^{3})}{(8.829 - 6.5) + (2.920)}$$

CONCEPT: SIGNIFICANT FIGURES: IN CALCULATIONS

PRACTICE: Perform the following calculation to the right number of sig figs:

$[(1.7 \times 10^6) \div (2.63 \times 10^5)] + 6.96$

PRACTICE: Perform the following mathematical operations and express the result to the correct number of significant figures.

$$\frac{(6.404 \times 2.91)}{(18.7 - 17.1)}$$

PRACTICE: What answer should be reported, with the correct number of significant figures, for the following calculation?

$$\frac{(42.00 - 40.914) \cdot (25.739 - 25.729)}{(11.50 \cdot 1.001) + (0.00710 \cdot 700.)}$$