CONCEPT: ADDITION AND SUBSTRACTION

When you add or subtract values in scientific notation they must have the same exponents. The coefficients add or subtract, but the exponents _____.

$$\begin{array}{r} A \times 10^{x} \\ -B \times 10^{x} \\ \hline (A-B) \times 10^{x} \end{array} \qquad \begin{array}{r} A \times 10^{x} \\ +B \times 10^{x} \\ \hline (A+B) \times 10^{x} \end{array}$$

- If the exponents are not the same then we transform the _____ value so that they do.
- Remember when adding or subtracting values that the final answer must have the _____.

EXAMPLE 1: Using the method discussed above, determine the answer to the following question.

$$\begin{array}{r} 8.17 \times 10^{8} \\ +1.25 \times 10^{9} \\ \hline \end{array}$$

EXAMPLE 2: Using the method discussed above, determine the answer to the following question.

$$\begin{array}{r} 9.08 \times 10^{-11} \\ -1.17 \times 10^{-12} \\ -3.35 \times 10^{-13} \\ \hline \end{array}$$