**CALCULATIONS IN SCIENTIFIC NOTATION**

**A) Steps for Multiplying Numbers in Scientific Notation**

1)  Multiply the coefficients.

2)  Add the exponents.

3)  Express the answer in scientific notation.

Example:

(3.9 x 10–5) (30.0 x 10–2)

multiply 3.9 by 30 = 117 x 10–5 x 10–2

117 x 10–7

Express in Scientific Notation

1.17 x 102 x 10–7 = 1.17 x 10–5

**B) Steps for Dividing Numbers in Scientific Notation**

1)  Divide the coefficients.

2)  Subtract the exponents.

3)  Express the answer in scientific notation.

Example:

(180.0 x 10–2) ÷ (0.3 x 109)

Divide 180.0 by 0.3 = 600.0 × 10(–2 – 9) = 10–11

600.0 x 10–11

Express in Scientific Notation

6.0 x 102 x 10–11 =

6.0 x 10–9