Scientific Notation **Name** _____

Scientific notation can be used to
Write very small or very large numbers.

Scientific notation is the product of a number, usually between 1 and 10, and 10 raised to some power.

To get the exponent, either divide or multiply the numbers by multiples of 10.

Examples: The number 2424 can be divided by 10 three times to get 2.424×10^3. The exponent is 3.
The number 0.000461 can be multiplied by 10 four times to get 4.61×10^{-4}. The exponent is -4.

Convert scientific notation to its decimal form and convert decimal numbers to scientific notation.

Number	Scientific Notation	Decimal form
625	6.24×10^2	
0.00452	4.52×10^{-3}	
924350	9.24350×10^5	
2.12×10^{-6}		0.00000212
5.2×10^2		520
0.01000	1.000×10^{-2}	
12.2×10^3		12200
9.67×10^{-1}		0.967
84000	8.4000×10^4	
2.8×10^{-3}		0.0028

Do the following calculations. (report answers with 3 significant figures).

1. $(6.21 \times 10^{-4}) \times 426$

   0.265

2. $6372 \times 0.464 \times (5.24 \times 10^{-2})$

   155

2. $\frac{8.34 \times 10^3}{2.68 \times 10^{-2}}$

   3.11×10^5

3. $\frac{9.25 \times 10^{-8}}{4.94 \times 10^{-4}}$

   0.000187 or 1.87×10^{-4}