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		
0.00452		
924350		
2.12×10^{-6}		
5.2×10^2		
0.01000		
12.2×10^3		
9.67×10^{-1}		
84000		
2.8×10^{-3}		

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

1. $(6.21 \times 10^{-4}) \times 426$ 2. $6372 \times 0.464 \times (5.24 \times 10^{-2})$

2. $\dfrac{8.34 \times 10^3}{2.68 \times 10^{-2}}$ 3. $\dfrac{9.25 \times 10^{-8}}{4.94 \times 10^{-4}}$