Reteaching Page
3.5 Scientific Notation

Scientific notation is used to show extremely large and very small numbers. Our galaxy is about 586,000,000,000,000,000 miles in diameter. 586 quadrillion is easier to record if you use scientific notation. $5.86 * 10^{17}$. Notice there are 17 places of value to the right of the 5.

A plant cell is $1.276 * 10^{-5} = 0.00001276$ meters wide (1276 hundred-millionths of a meter) Notice that there are 5 decimal places to the **left** of the 2.

The number of times that the decimal point is moved will be shown as the power of 10.

Let's practice writing numbers with Scientific Notation.

571,000 – How many "places of value" are to the right of the 5? = $5.71 * 10^{5}$

621 – How many "places of value" are to the right of the 6? = $6.21 * 10^{-}$

3865 – How many "places of value" are to the right of the 3? = _____

322,406	5,000,000	13,156	91,000
_____	_____	_____	_____

The power of 10 will show you how many place to move the decimal point!

Let's practice writing numbers in Standard Form.

$8.91 * 10^{6}$ – We will move the decimal **6 places** to the right. = 8910000 = 8,910,000

$2.25 * 10^{4}$ – We will move the decimal ____ **places** to the right. = 22500 = _____

$4.88 * 10^{5}$ – We will move the decimal ____ **places** to the right. = _____ = _____

$8.47 * 10^{3}$	$9.36 * 10^{2}$	$6.62 * 10^{1}$	$5.634 * 10^{7}$
_____	_____	_____	_____