Name: _____   Date: _____

Learning Goal 2.4	I can convert numbers between standard form and scientific notation.

Many of the measurements scientists use are extremely big or extremely small. For example:

- Mass of Neutron

- Distance to the sun

Scientists needed a way of communicating these numbers that is

-   •

Scientific Notation

Now,

- Mass of Neutron

- Distance to the sun

Positive Exponent	• •
Negative Exponent	• •

Assignment   Handout   Quiz: Next Day!

Example Express the following numbers in scientific notation.

   a. 1200 g

                                                b. 0.00657 m

   c. 5601 L

                                                d. 14 100 000 km

   e. 0.000 000 698 mg

                                                f.   12 million hours

   g. The speed of light in a vacuum   299 793 458 m/s

   h. Number of seconds in a day   86 400 s

   i.   Mean radius of the earth   6378 km

   j.   Radius of an argon atom   0.000 000 000 098 m

To undo scientific notation, or write a number given in scientific notation in standard notation

Positive Exponent	• •
Negative Exponent	• •

Example Write each number in standard notation.

   a. 1.23×10^{-4} mg

                                                b. 7.35×10^{-10} mL

   c. 7.982×10^{6} km

                                                 d. 1.6325×10^{10} kg