

Elements and Atomic Structure

The Bohr-Rutherford model of the atom states that atoms are composed of three subatomic particles: **protons**, **neutrons**, and **electrons**

Protons - heavy positively charged particles found in the nucleus



The # of **protons** = the *atomic number* of the Element

Neutrons - Neutral particles that have about the same mass as protons and are also found in the nucleus

of **neutrons** = *atomic mass* - *atomic number*
(rounded)



Electrons - Negatively charged particles with almost no mass that "circle" the nucleus at different energy levels, also called orbits or shells.

Atoms are electrically neutral,
so...

of **protons** = # of **electrons**

Practice make perfect!

Find the number of protons and neutrons for the following elements:

Element	# of protons	# of neutrons	# of electrons
Lithium			
Fluorine			
Calcium			
Helium			
Argon			
Potassium			

Standard Atomic Notation

atomic mass

201

Hg

atomic number

80

element symbol

Subatomic Particles Handout