

Drawing Bohr's

Atom Model

ENERGY LEVELS

- 1st Energy Level 2 electrons
- 2nd Energy Level 8 electrons
- 3rd Energy Level 18 electrons

- 4th Energy Level 32 electrons
- 5th Energy Level 50 electrons
- 6th Energy Level 72 electrons
- 7th Energy Level 98 electrons

You can draw the structures of atoms by using the atomic number and the atomic mass.

Let's draw the atomic structure for the element Hydrogen.

Hydrogen

Atomic Number=1

Atomic Mass=1

Figure out the number of protons, neutrons and electrons each atom contains.

Hydrogen

Atomic Number=1

Atomic Mass=1

of Protons = $\frac{1}{1}$

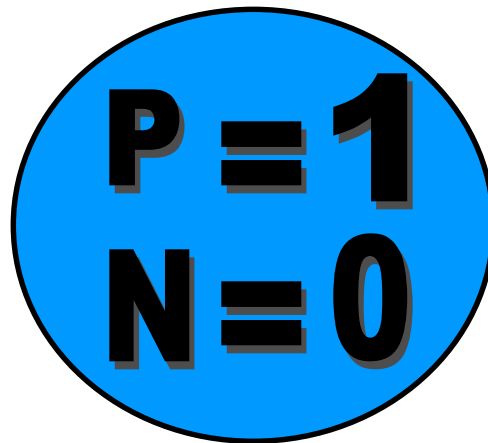
of electrons = $\frac{1}{1}$

of Neutrons = $\frac{0}{1}$

Draw a circle to represent the nucleus and place the number of protons and neutrons in the nucleus.

Atomic
Number=1

Atomic Mass=1

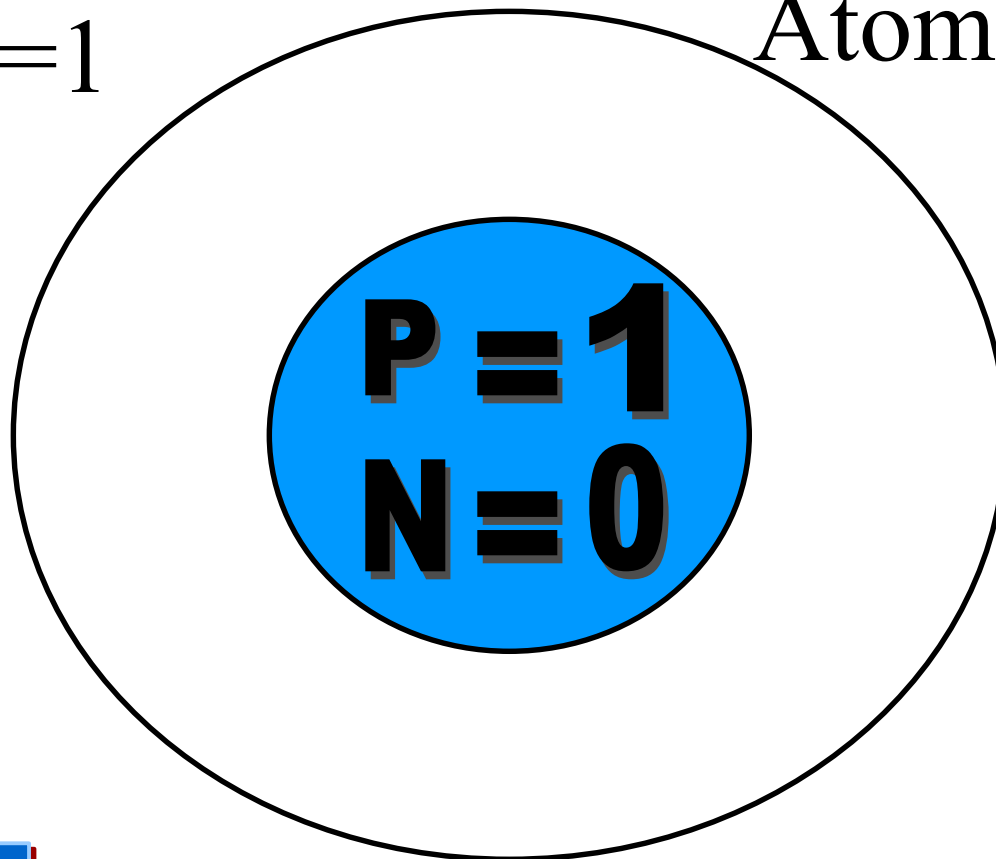


H

Now draw circles around
the nucleus to represent the
energy levels.

Atomic
Number=1

Atomic Mass=1

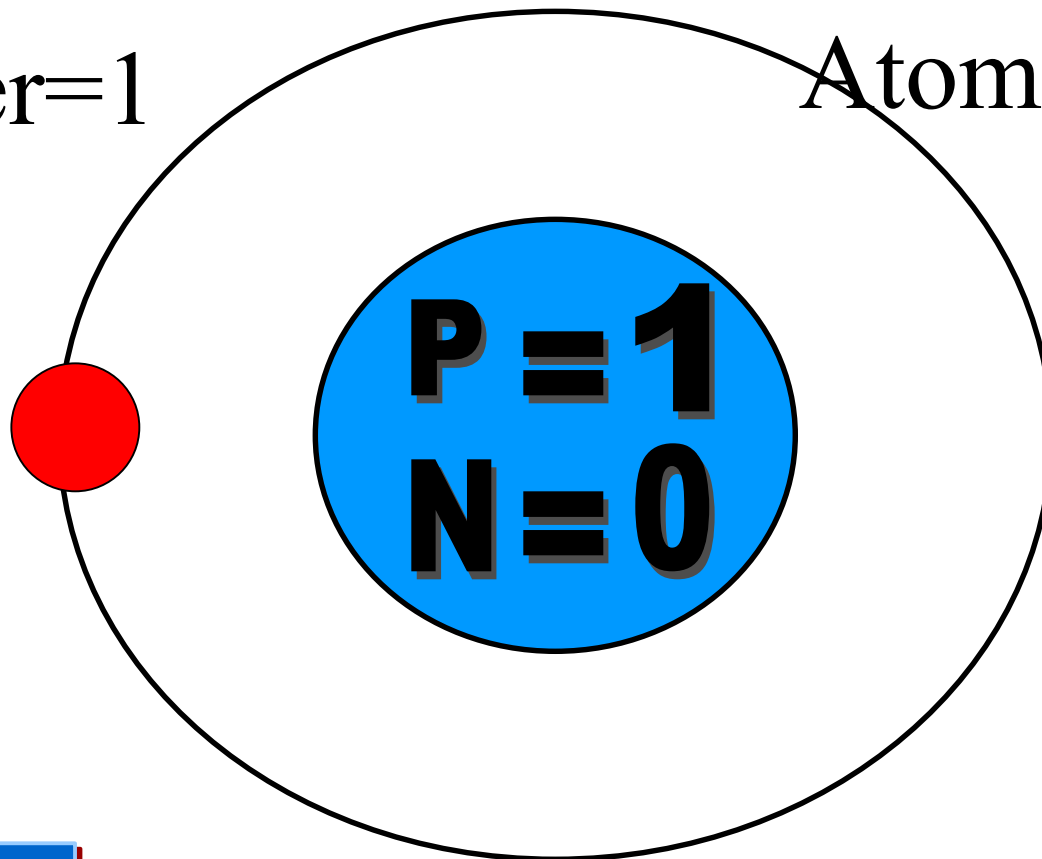


H

Remember to put the correct number of electrons in each energy level.

Atomic
Number=1

Atomic Mass=1

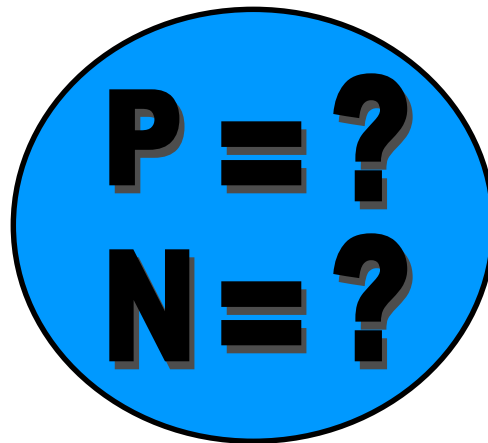


H

Now let's draw
Lithium.

Atomic Number=3

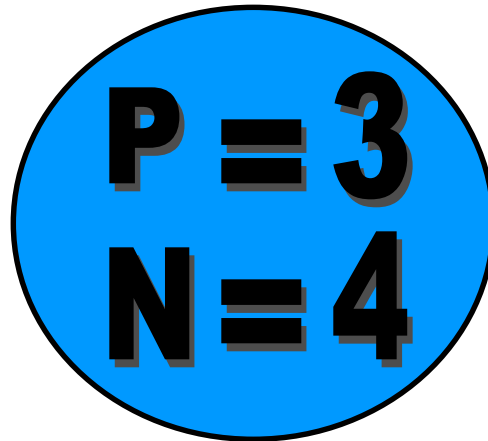
Atomic Mass=7



Li

Atomic Number=3

Atomic Mass=7



Li

How many electrons
does Lithium have?

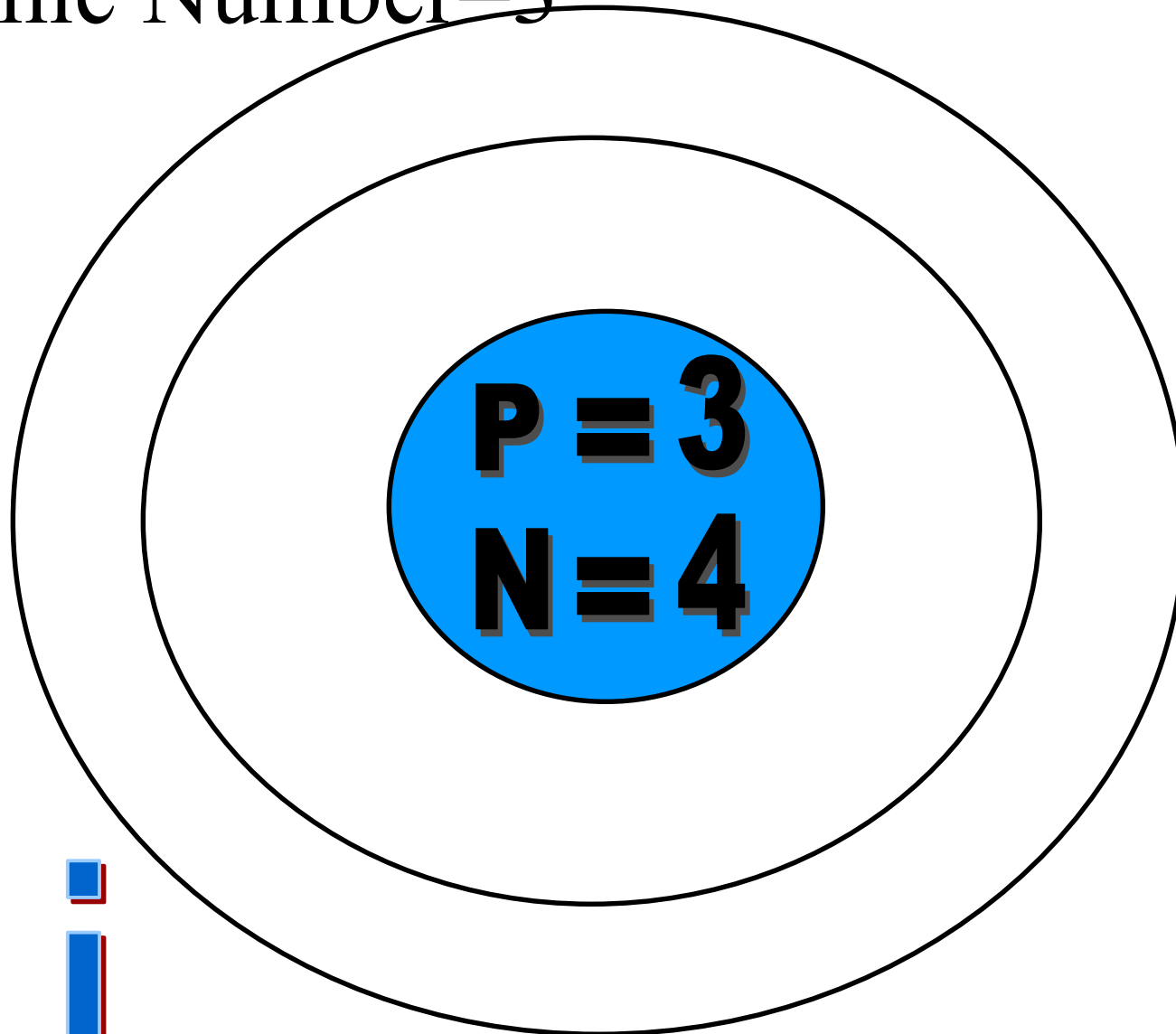
3

How many
electrons are
allowed in the first
energy level?

2

Atomic Number=3

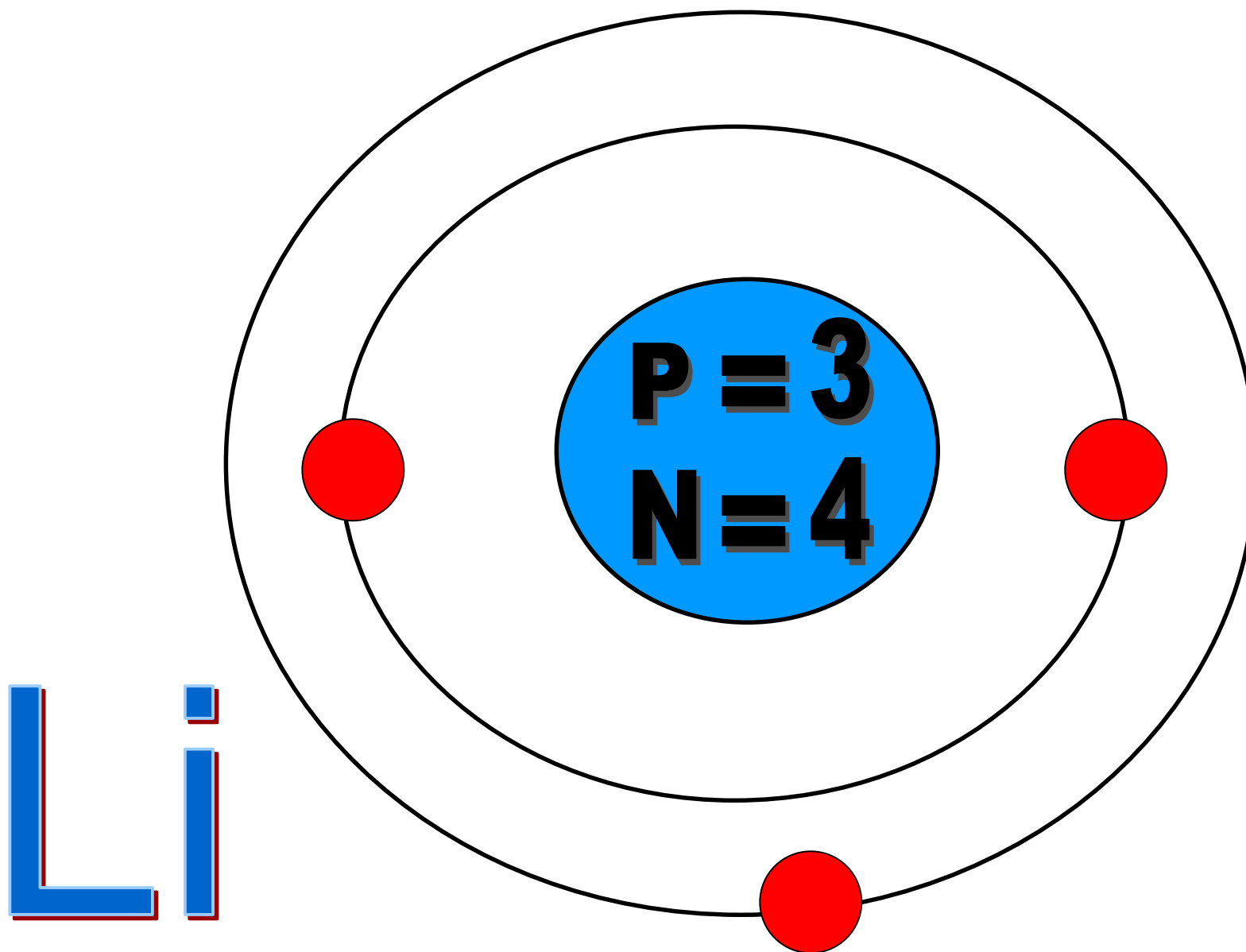
Atomic Mass=7



Li

Atomic Number=3

Atomic Mass=7



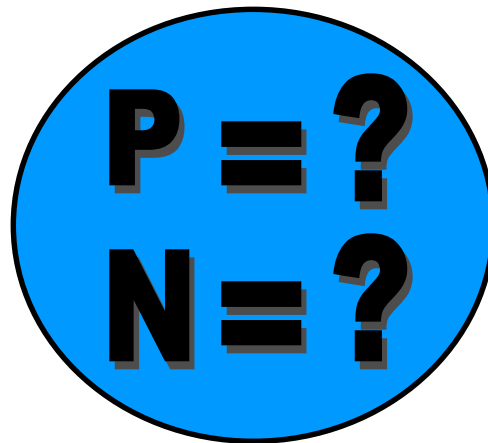
Now draw Helium
and Nitrogen

Helium

Answer

Atomic
Number=2

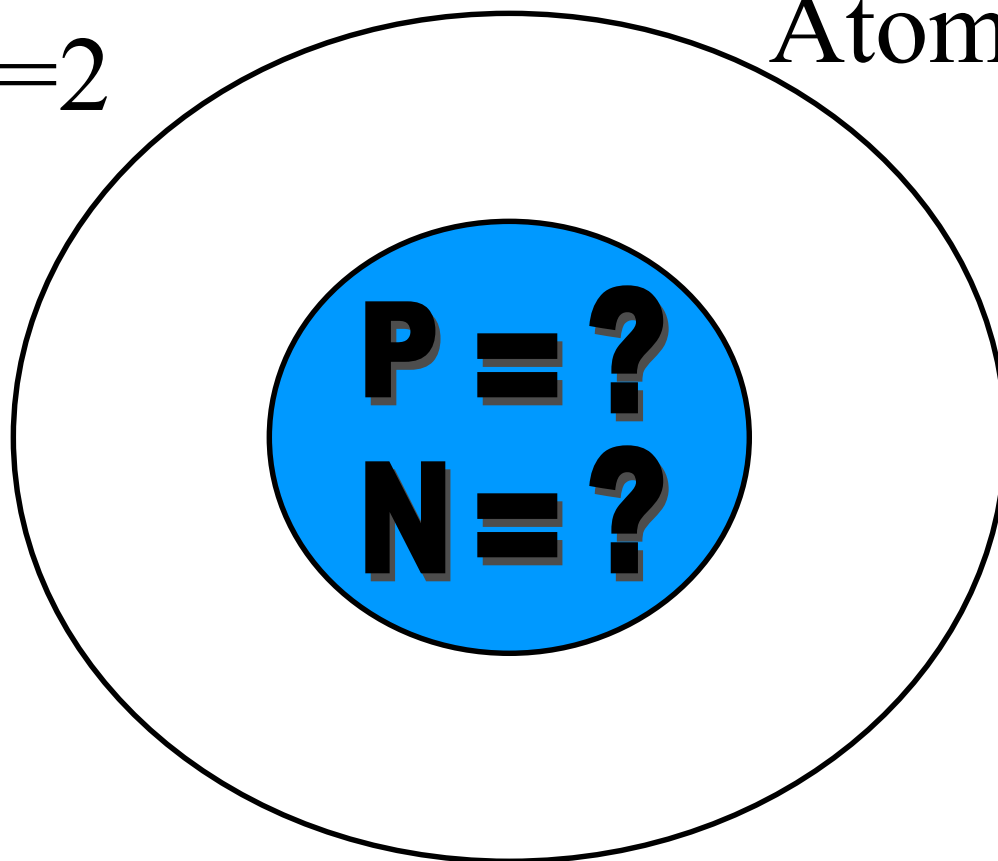
Atomic Mass=4



He

Atomic
Number=2

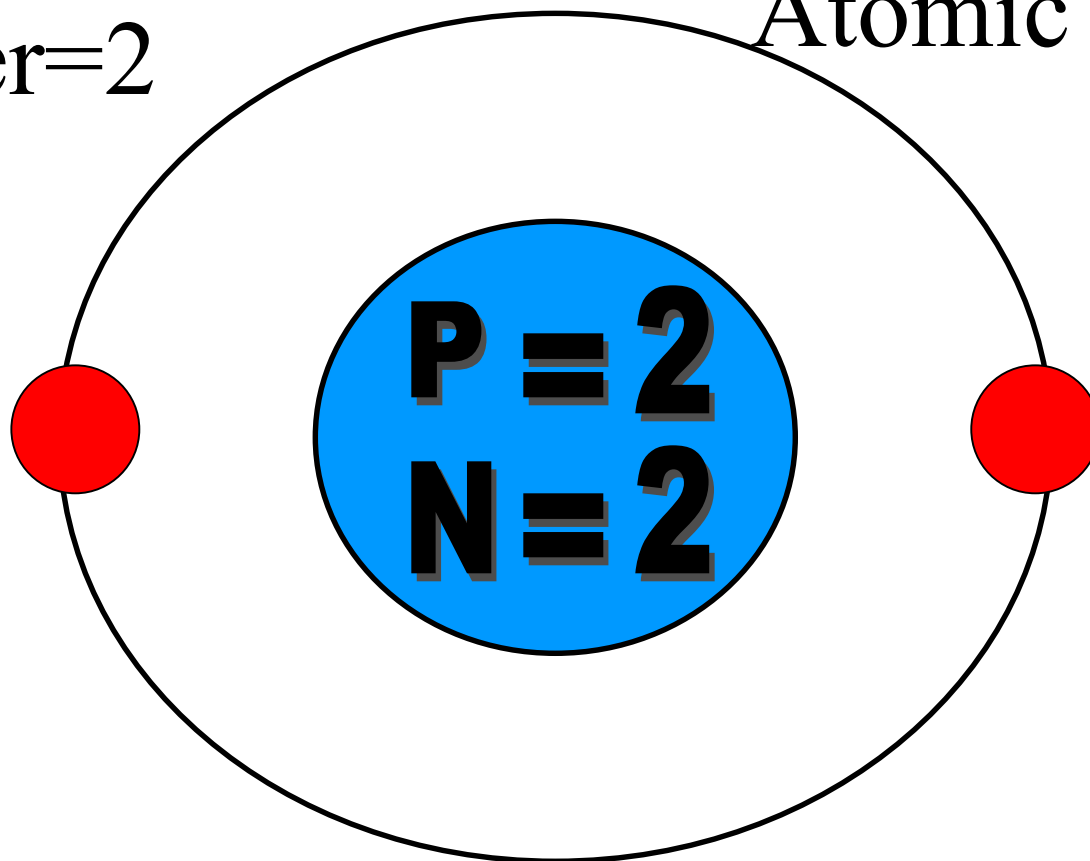
Atomic Mass=4



He

Atomic
Number=2

Atomic Mass=4



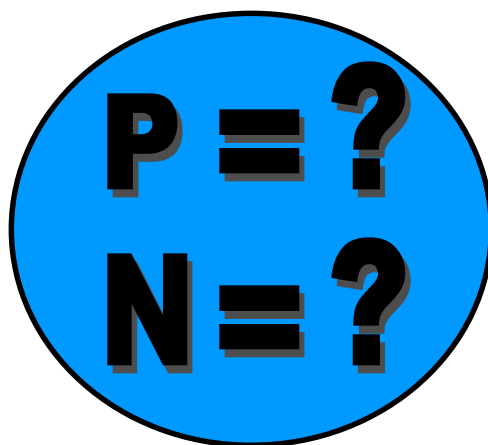
He

Nitrogen

Answer

Atomic Number=7

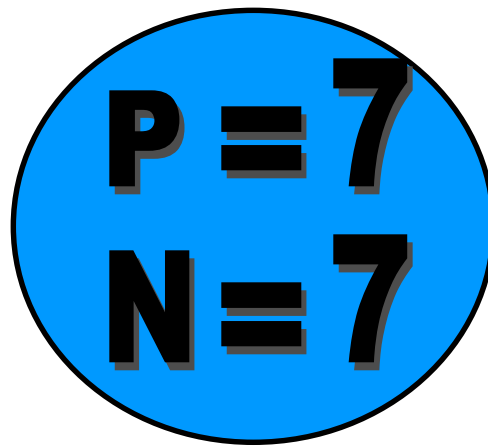
Atomic Mass=14



N

Atomic Number=7

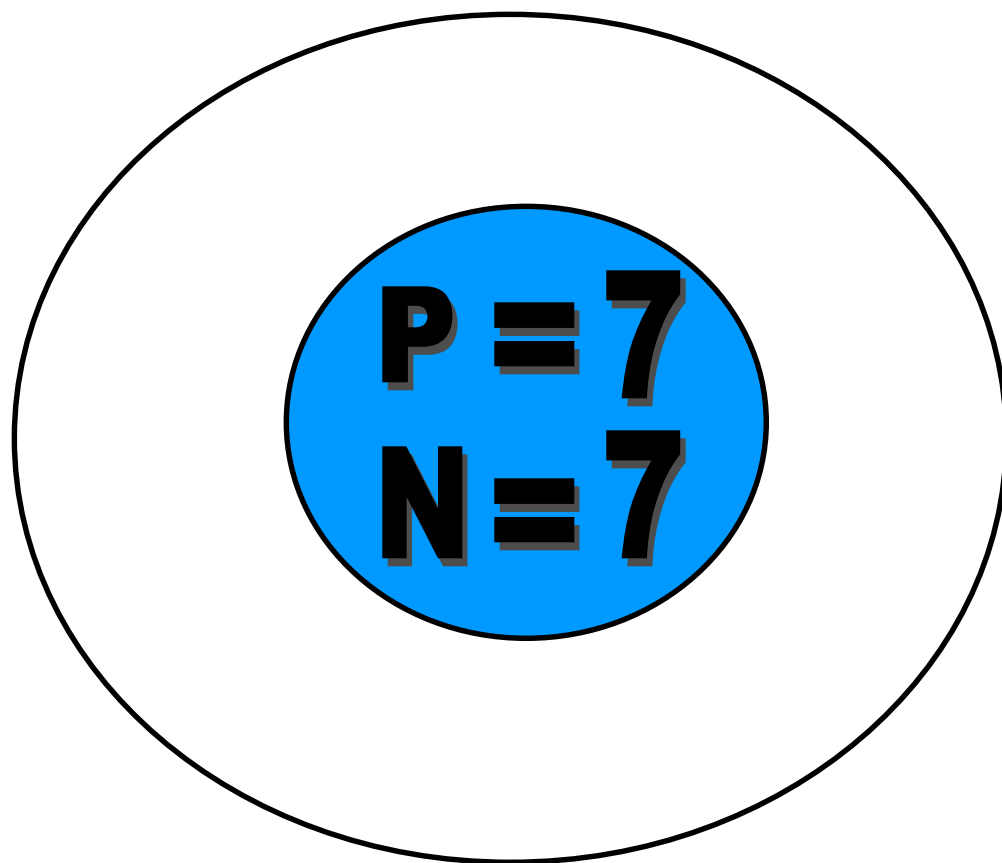
Atomic Mass=14



N

Atomic Number=7

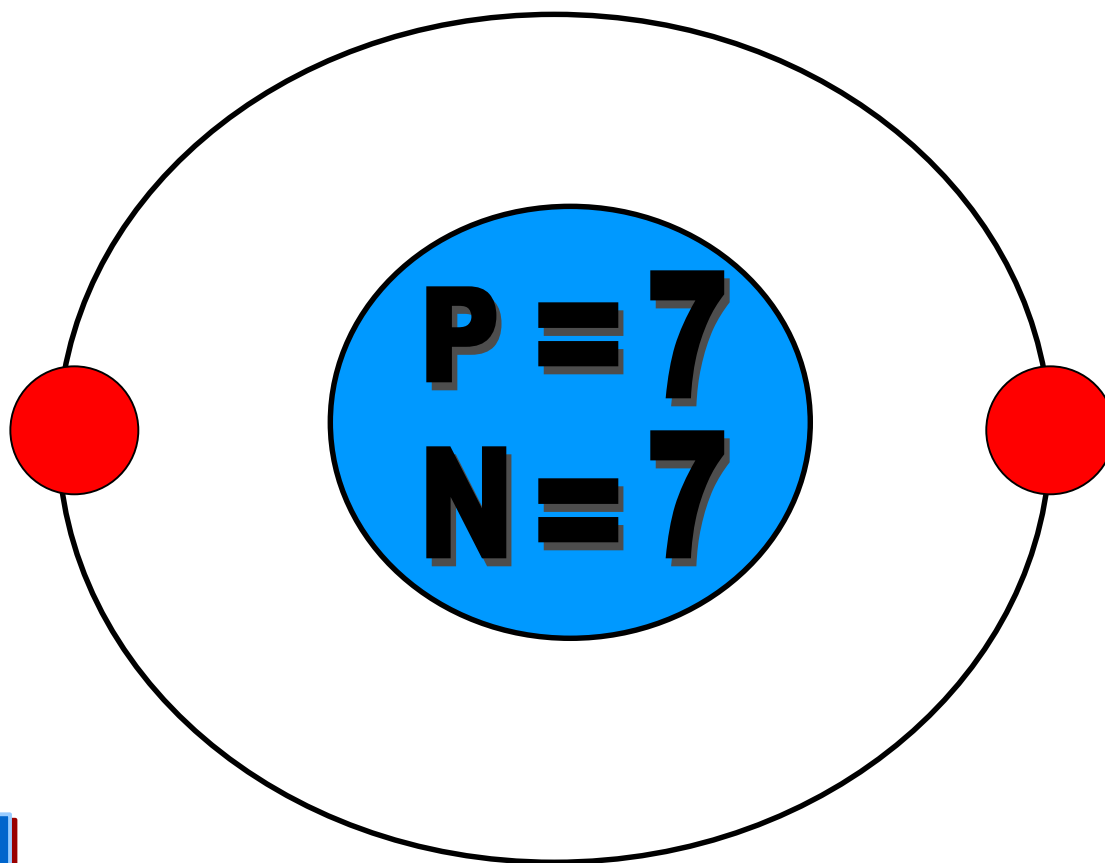
Atomic Mass=14



N

Atomic Number=7

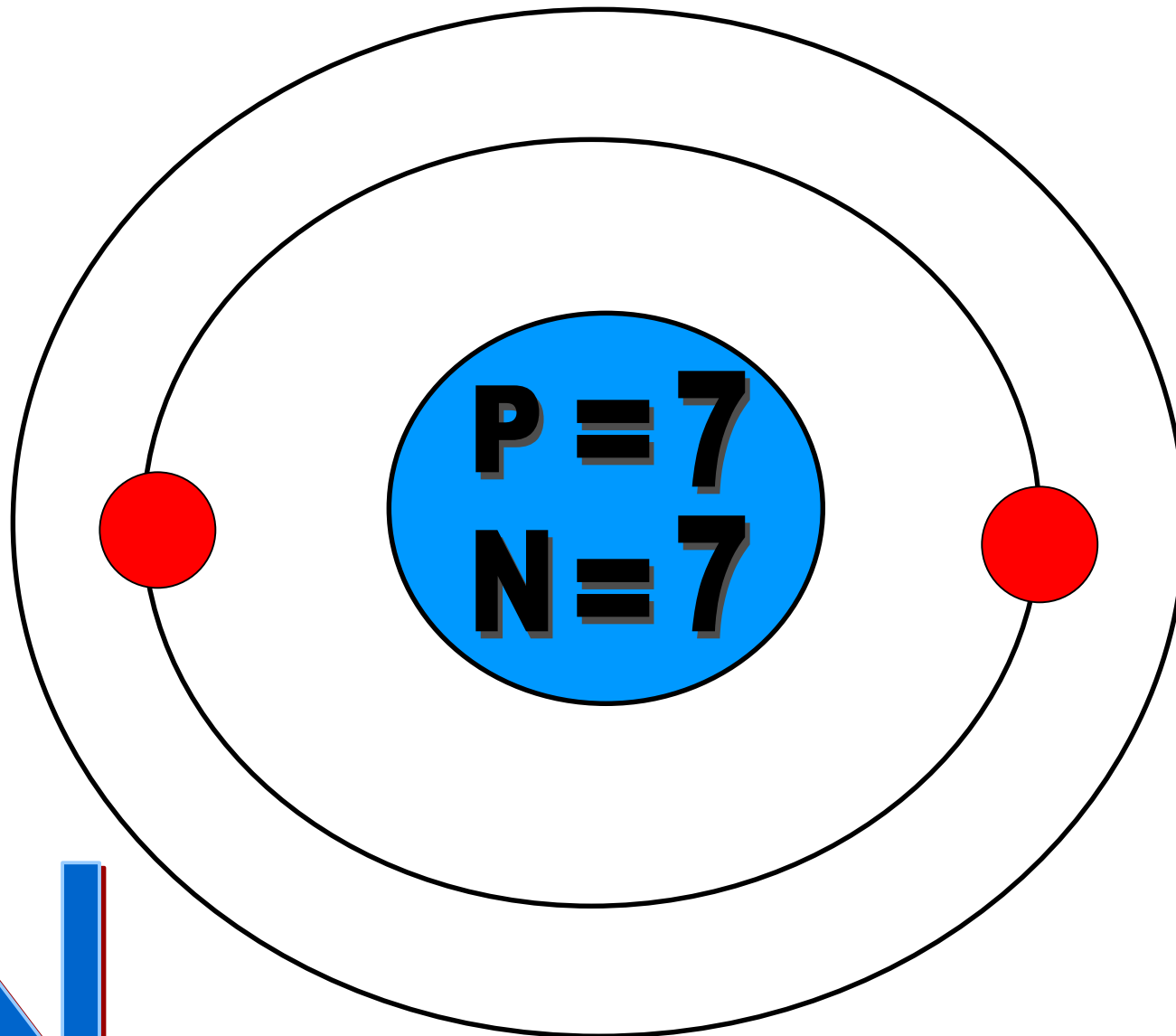
Atomic Mass=14



N

Atomic Number=7

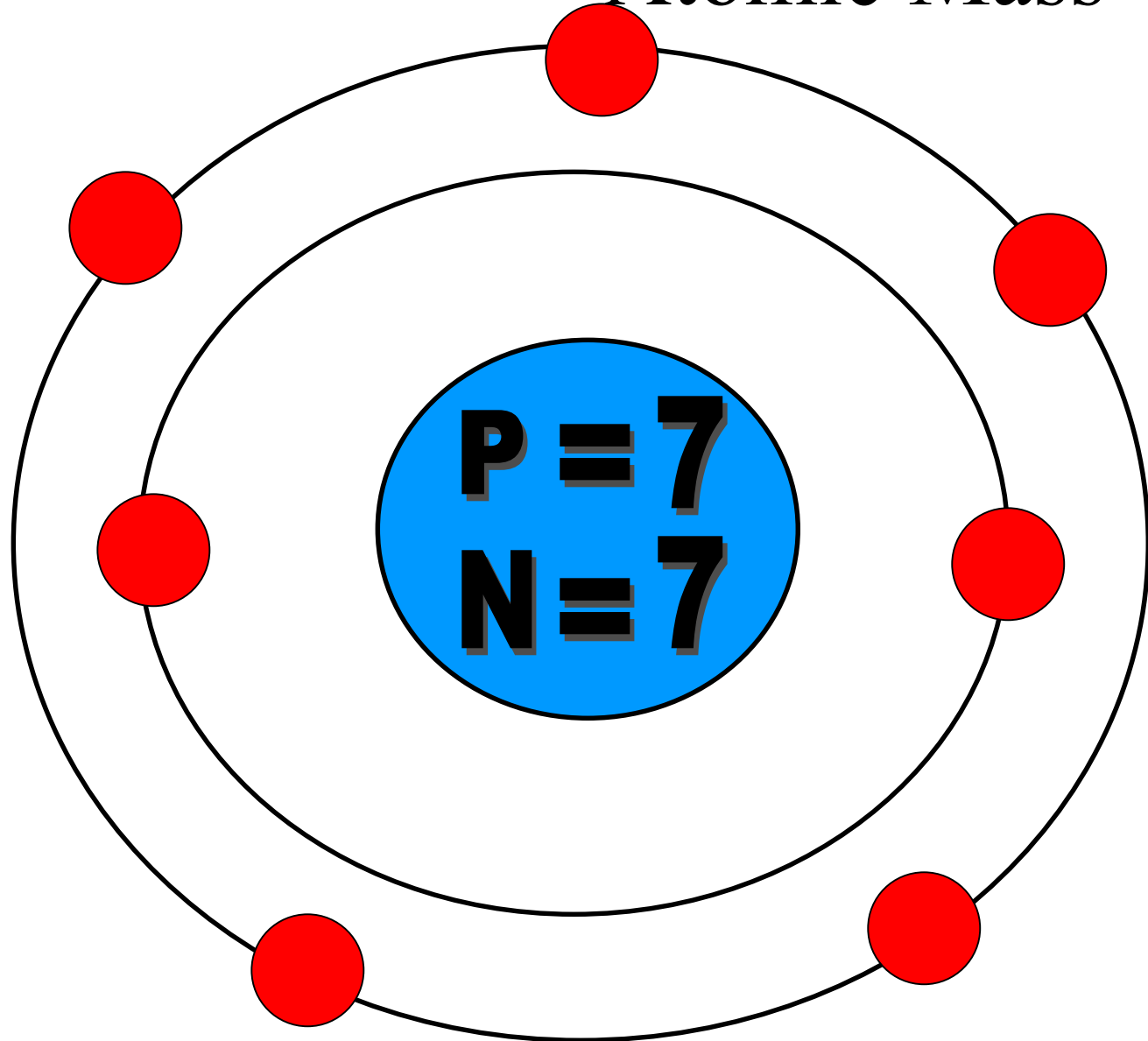
Atomic Mass=14



N

Atomic Number=7

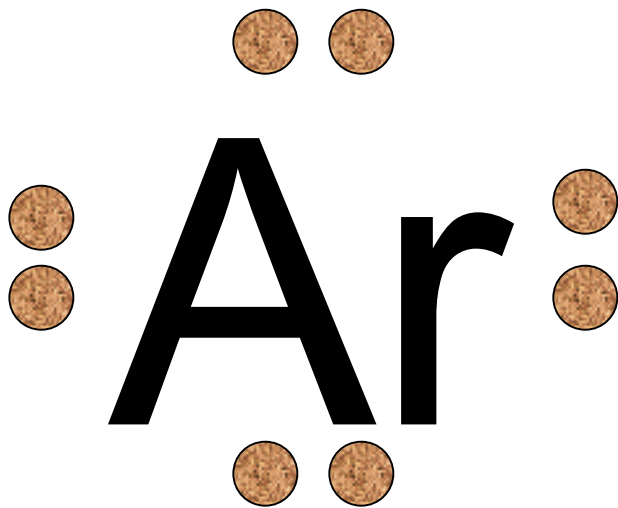
Atomic Mass=14



N

Electron Dot Diagram...

oh goody, another way to draw atoms!



- Valence electrons can be represented by using the dot diagram.
- The number of dots represent the number of valence electrons.
- The first 4 dots are drawn by themselves.
- The dots can only pair up when all the single places are filled.

Now let's draw Lithium...

