Using the Periodic Table to Determine Information About Elements

Review of Rules:

1. The atomic number tells you the number of protons.
2. Number of protons = number of electrons (assume neutral atoms).
3. Number of neutrons = atomic mass – atomic number (round to nearest whole number).
4. Number of valence electrons (electrons in outermost energy level) = group number.
5. Group number = number at top of vertical column.
6. Period number = horizontal row number (starting with #1 = H, He ; #2 = Li, Be, … etc)
7. Number of energy levels = period number.

Referring to the periodic table, complete the following information charts:

Information on BORON

Symbol: _____ Atomic number: _____

Atomic mass: _____ Number of protons: _____

Number of electrons: _____ Number of neutrons: _____

Group number: _____ Period number: _____

Number of energy levels: _____

Number of electrons in the outermost energy level:_____

Information on SILICON

Symbol: _____ Atomic number: _____

Atomic mass: _____ Number of protons: _____

Number of electrons: _____ Number of neutrons: _____

Group number: _____ Period number: _____

Number of energy levels: _____

Number of electrons in the outermost energy level:_____

Information on CALCIUM

Symbol: _____ Atomic number: _____

Atomic mass: _____ Number of protons: _____

Number of electrons: _____ Number of neutrons: _____

Group number: _____ Period number: _____

Number of energy levels: _____

Number of electrons in the outermost energy level:_____

Information on CHLORINE

Symbol: _____ Atomic number: _____

Atomic mass: _____ Number of protons: _____

Number of electrons: _____ Number of neutrons: _____

Group number: _____ Period number: _____

Number of energy levels: _____

Number of electrons in the outermost energy level:_____

Information on ARGON

Symbol: _____ Atomic number: _____

Atomic mass: _____ Number of protons: _____

Number of electrons: _____ Number of neutrons: _____

Group number: _____ Period number: _____

Number of energy levels: _____

Number of electrons in the outermost energy level:_____

Information on OXYGEN

Symbol: _____ Atomic number: _____

Atomic mass: _____ Number of protons: _____

Number of electrons: _____ Number of neutrons: _____

Group number: _____ Period number: _____

Number of energy levels: _____

Number of electrons in the outermost energy level:_____

Information on NITROGEN

Symbol: _____ Atomic number: _____

Atomic mass: _____ Number of protons: _____

Number of electrons: _____ Number of neutrons: _____

Group number: _____ Period number: _____

Number of energy levels: _____

Number of electrons in the outermost energy level:_____

Information on HYDROGEN

Symbol: _____ Atomic number: _____

Atomic mass: _____ Number of protons: _____

Number of electrons: _____ Number of neutrons: _____

Group number: _____ Period number: _____

Number of energy levels: _____

Number of electrons in the outermost energy level:_____

Information on SODIUM

Symbol: _____ Atomic number: _____

Atomic mass: _____ Number of protons: _____

Number of electrons: _____ Number of neutrons: _____

Group number: _____ Period number: _____

Number of energy levels: _____

Number of electrons in the outermost energy level:_____

Information on HELIUM

Symbol: _____ Atomic number: _____

Atomic mass: _____ Number of protons: _____

Number of electrons: _____ Number of neutrons: _____

Group number: _____ Period number: _____

Number of energy levels: _____

Number of electrons in the outermost energy level:_____