

Chemistry 101
Solutions to Quiz # 2
Monday, September 15 Version

Please complete the following questions. You may use the periodic table on the back and/or the one in the classroom. You may not use any notes or your own periodic table.

- (1 pt) Magnesium (Mg) is:
 - a noble gas
 - an alkali metal
 - an alkaline earth metal ← *correct*
 - a halogen
 - a transition metal
- (1 pt) Which of the following particles carries a positive electrical charge?
 - protons ← *correct*
 - neutrons
 - electrons
 -
- (1 pt) Is phosphorous (P) a **metal** or **nonmetal** (circle one)?
- (1 pt) How many protons and electrons are there in a neutral atom of bromine?
Br = atomic number 35, so 35 protons and 35 electrons
- (6 pts, 2 each row) Complete the following table for neutral atoms:

| Symbol | Atomic number | Mass number | number of protons | number of neutrons | Number of electrons |
|-------------------------|---------------|-------------|-------------------|--------------------|---------------------|
| ${}^{42}_{20}\text{Ca}$ | 20 | 42 | 20 | 22 | 20 |
| ${}^2_1\text{H}$ | 1 | 2 | 1 | 1 | 1 |
| ${}^{37}_{17}\text{Cl}$ | 17 | 37 | 17 | 20 | 17 |