

CHM 110 Practice Set 2
Periodic Table and Ionic Compounds**SOLUTIONS**

Follow the directions for each part, and write answers in the provided blanks.

Find the requested information using the periodic table.

- 1) potassium The name of an element whose symbol is K
- 2) 107.9 The atomic weight of the element whose atomic number is 47
- 3) metalloid The type of element silicon is (metal/nonmetal/metalloid)
- 4) metal The type of element molybdenum is (metal/nonmetal/metalloid)
- 5) 52 The atomic number of tellurium
- 6) Re The atomic symbol of rhenium
- 7) 8 The number of neutrons in the nucleus of an atom of carbon-14
- 8) 56 The number of electrons in a neutral atom of Ba
- 9) 23 The number of protons in the nucleus of an atom of vanadium
- 10) 47 The number of electrons in a neutral atom that contains 47 protons

Using the periodic table, predict the charges of the ions formed from these elements.

- 11) +3 Aluminum
- 12) -1 Chlorine
- 13) -2 Sulfur
- 14) +1 Potassium
- 15) -3 Phosphorus

Write the chemical formulas of these ionic compounds.

- 16) Na₂S sodium sulfide
17) FeCl₂ iron(II) chloride
18) Cu₃N copper(I) nitride
19) (NH₄)₃PO₄ ammonium phosphate
20) Ca(NO₃)₂ calcium nitrate
21) Cr₂O₃ chromium(III) oxide

Write the chemical name of these ionic compounds.

- 22) beryllium nitrate Be(NO₃)₂
23) copper(II) nitride Cu₃N₂
24) calcium hydroxide Ca(OH)₂
25) titanium(IV) sulfate Ti(SO₄)₂
26) strontium chloride SrCl₂
27) ammonium sulfide (NH₄)₂S