Unit 4 Rev. Prob. I

Name the following:

KCl \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ MgO\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Na2SO4\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ NH4OH\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

S2Cl5\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ N2Br3\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Give the formula for the following:

Rubidium Sulfate\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Radium Selenide\_\_\_\_\_\_\_\_\_\_\_\_\_

Thallium Nitrate\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Dicarbon Tetraoxide\_\_\_\_\_\_\_\_\_\_\_

Gallium Sulfide\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Boron Fluride\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Ion Exchange

**1.) Al2(SO4)3 + Cl2🡪**

**2.) In2Po3 + O2 🡪**

**3.) NaF + Ra🡪**

**4.) Fr + Be3P2🡪**

**5.) NH4(NO3) + N2🡪**

**6.) Mg + Br2🡪**

**7.) RaCl2 + F2 🡪**

**8.) NaOH + Ga(NO3)3🡪**

Specific Heat & Energy

Calculations.

III

\*\*Always shoe your work when you do calculations.

Energy = mass of substance x Change in Temp. x specific heat of substance

(J) (g) (Degrees Celsius) (J/g x C)

1. If a substance had a mass of 19 g and a specific heat of .5 J/g x C and heated up from 1 to 15 degrees C, how much energy was given off?
2. If a substance has a mass of 278 g and a specific heat of 2.55 J/g x C and was heated from 45 degrees Celsius, how much energy was given off?
3. If a substance that gave off 54 J of energy, was heated up25 degrees Celsius and had a mass of 8.5 g, what is the specific heat?
4. If a substance had a specific heat of 2.9 J/g x C and gave off 82 joules of energy and was heated from 70 to 195 degrees Celsius, what was the object’s mass?