

1. Using the “Activity Series” (HOT/NOT list) determine if these reactions will occur. If they occur, write *the complete balanced equation*. IF NOT, write ***NO WAY JOSE!***

a. silver nitrate + gold(II) ☐

b. lithium chloride + fluorine ☐

c. zinc acetate + hydrogen ☐

d. chlorine + magnesium fluoride ☐

e. potassium + zinc chromate ☐

2. Using the “Table of Solubilities” and your Periodic table, identify the phase (s, l, g, aq) of each substance in the following reactions. Complete the reactions as necessary.

a)  $2 \text{AlBr}_3(\quad) + 3 \text{Cl}_2(\quad) \square 2 \text{AlCl}_3(\quad) + 3 \text{Br}_2(\quad)$

b)  $\text{Na}_2\text{CO}_3(\quad) + \text{CaF}_2(\quad) \square \text{CaCO}_3(\quad) + 2 \text{NaF}(\quad)$

c)  $\text{Ca}_{(s)} + \text{H}_2\text{O}(\quad) \square \text{ }(\quad) + \text{ }(\quad)$

d) ammonium sulfate  $(\quad)$  + silver nitrate  $(\quad) \square$

$\text{ }(\quad) + \text{ }(\quad)$

e) potassium iodide  $(\quad)$  + lead(II) nitrate  $(\quad) \square$

$\text{ }(\quad) + \text{ }(\quad)$