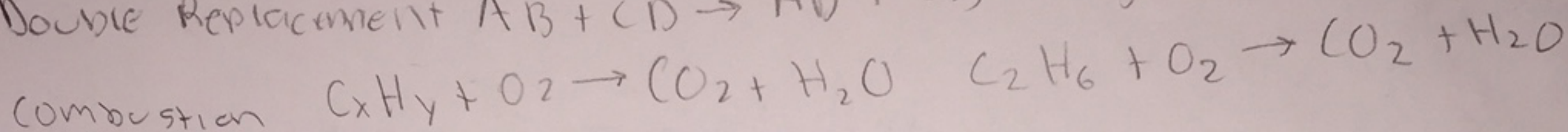
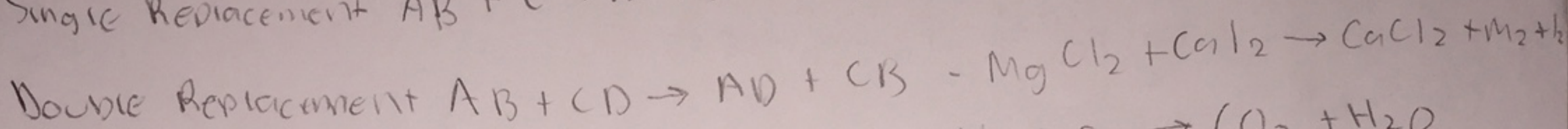
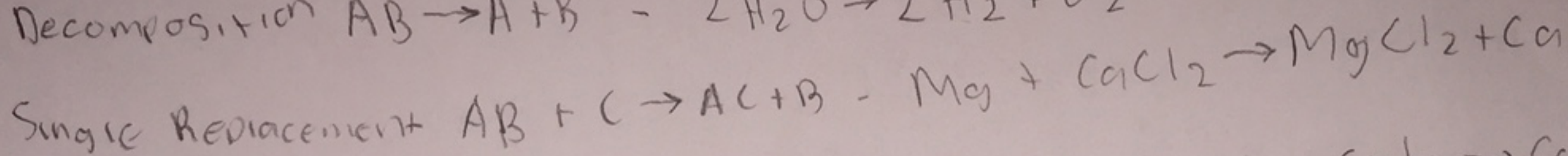
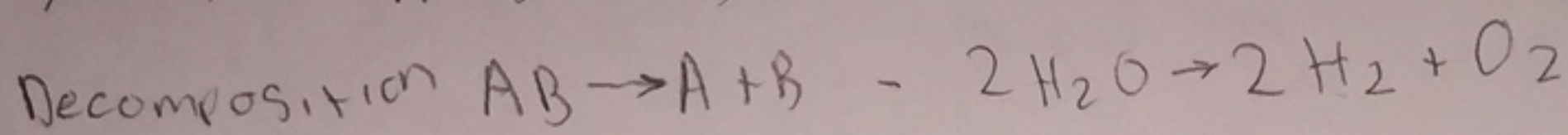
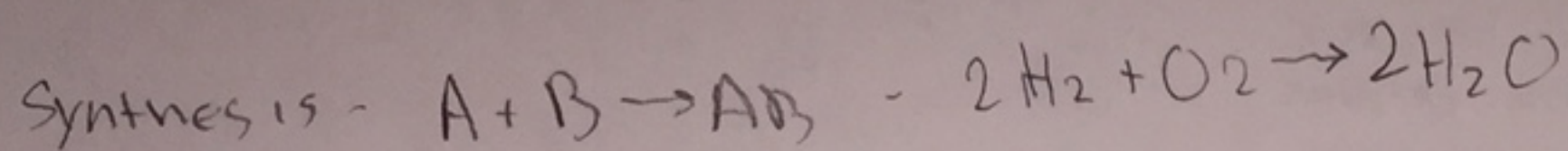
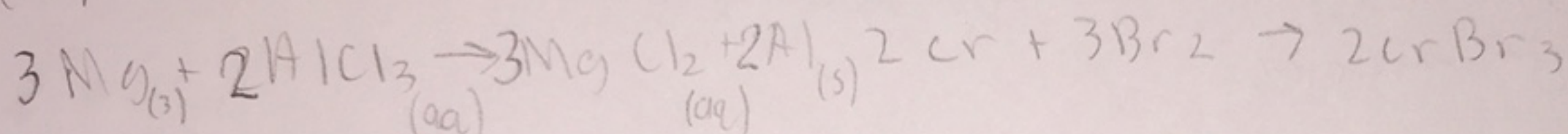
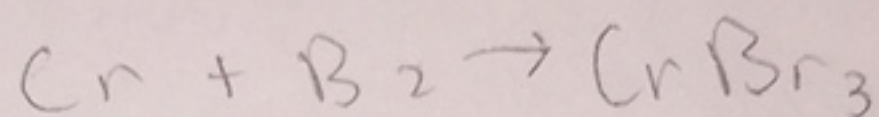


Chemical Reactions



(l) - liquid (s) - solid (g) - gas (aq) Aqueous ($\rightarrow$) - product

($\rightleftharpoons$) - Reverse reaction

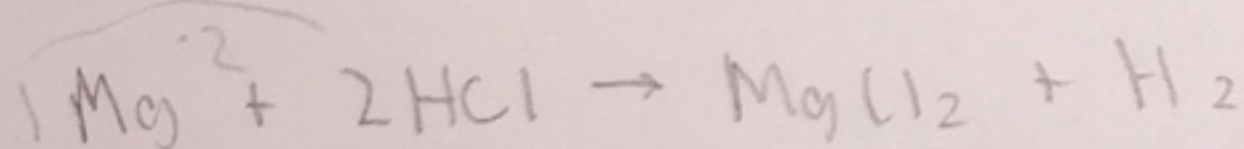


Stoichiometry

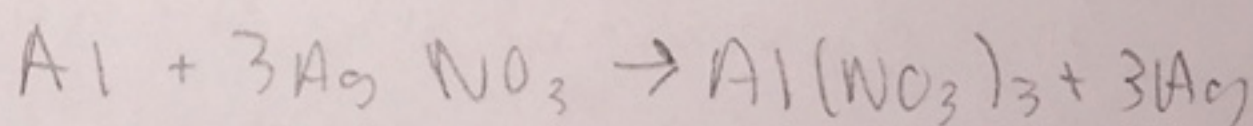
Study of the relationships (through calculation)

between quantities of reactants and products in

a chemical reaction



4.50 2 ? 0 0
-4.50 -9.00 4.50 4.50
0 ? 4.50 4.50

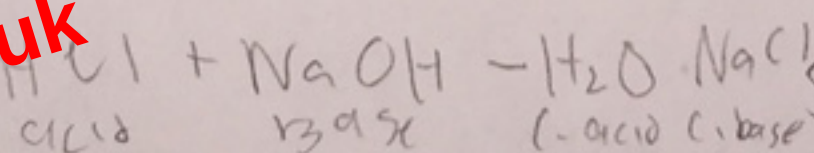


4 moles for 12.0 mol Silver

15 mol for 5.0 mol reacted

Acids and Bases

Acid (H^+ donor) Base (OH^- acceptor)

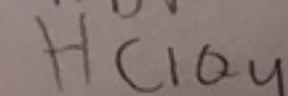
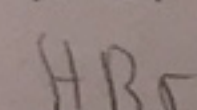
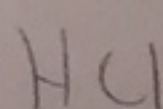
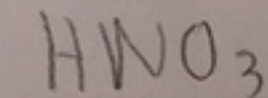
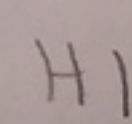
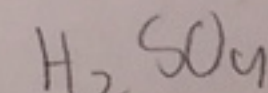
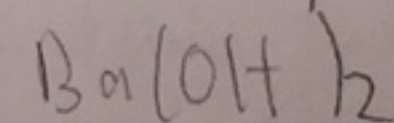
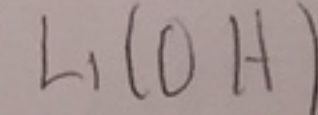
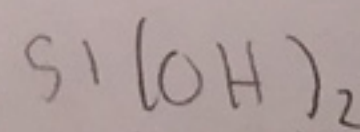
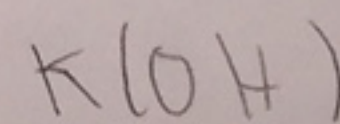
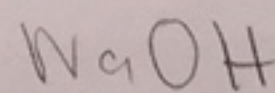


Strong Bases

Strong Acids

$pH = -\log [H_3O^+]$

$pOH = -\log [OH^-]$



$pH = pK_a + pOH$ conjugate

$M_{acid} \cdot L_{acid} = M_{base} \cdot L_{base}$

% yield = $\frac{\text{actual yield}}{\text{theoretical}} \cdot 100$

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
most acidic neutral most basic

most acidic

neutral

most basic