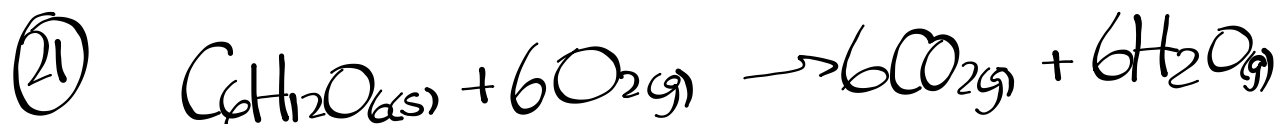
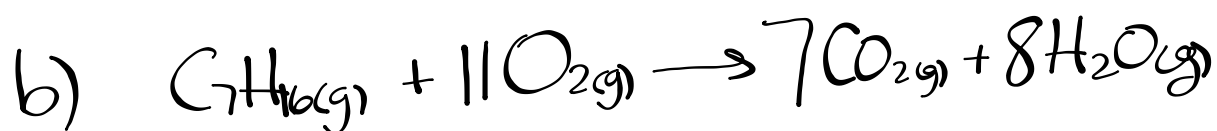
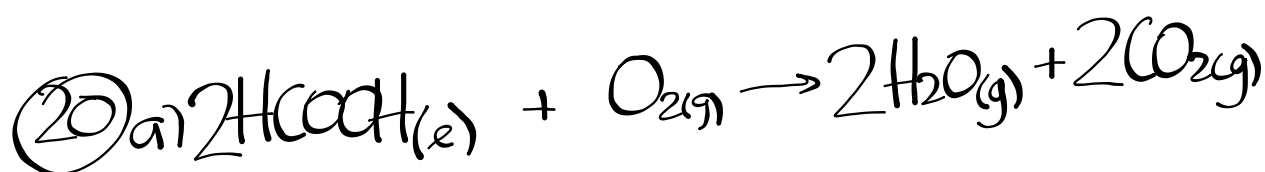
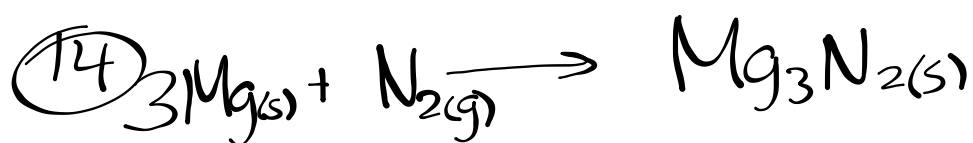


## Homework - #13-16, 20,21



..

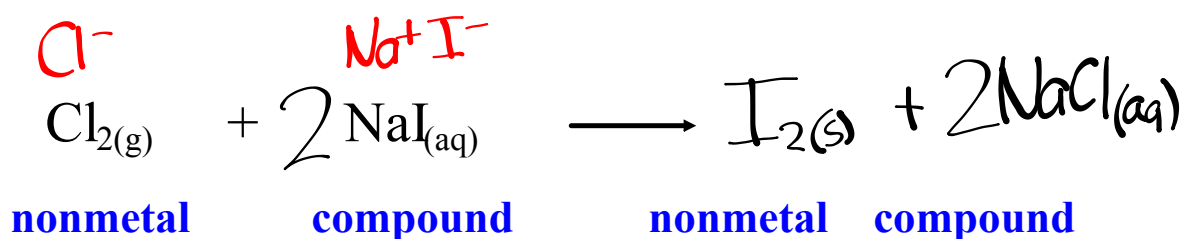
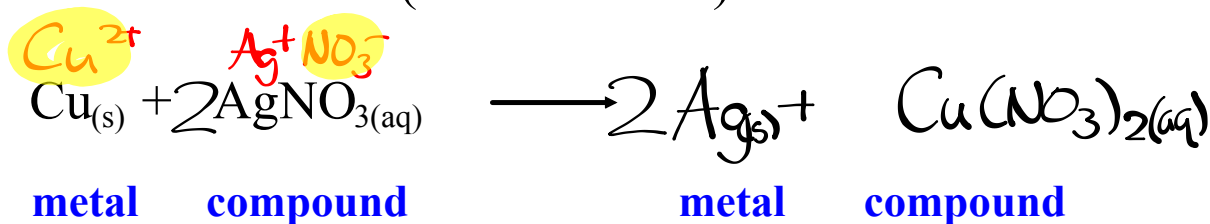
## Chemical Reactions

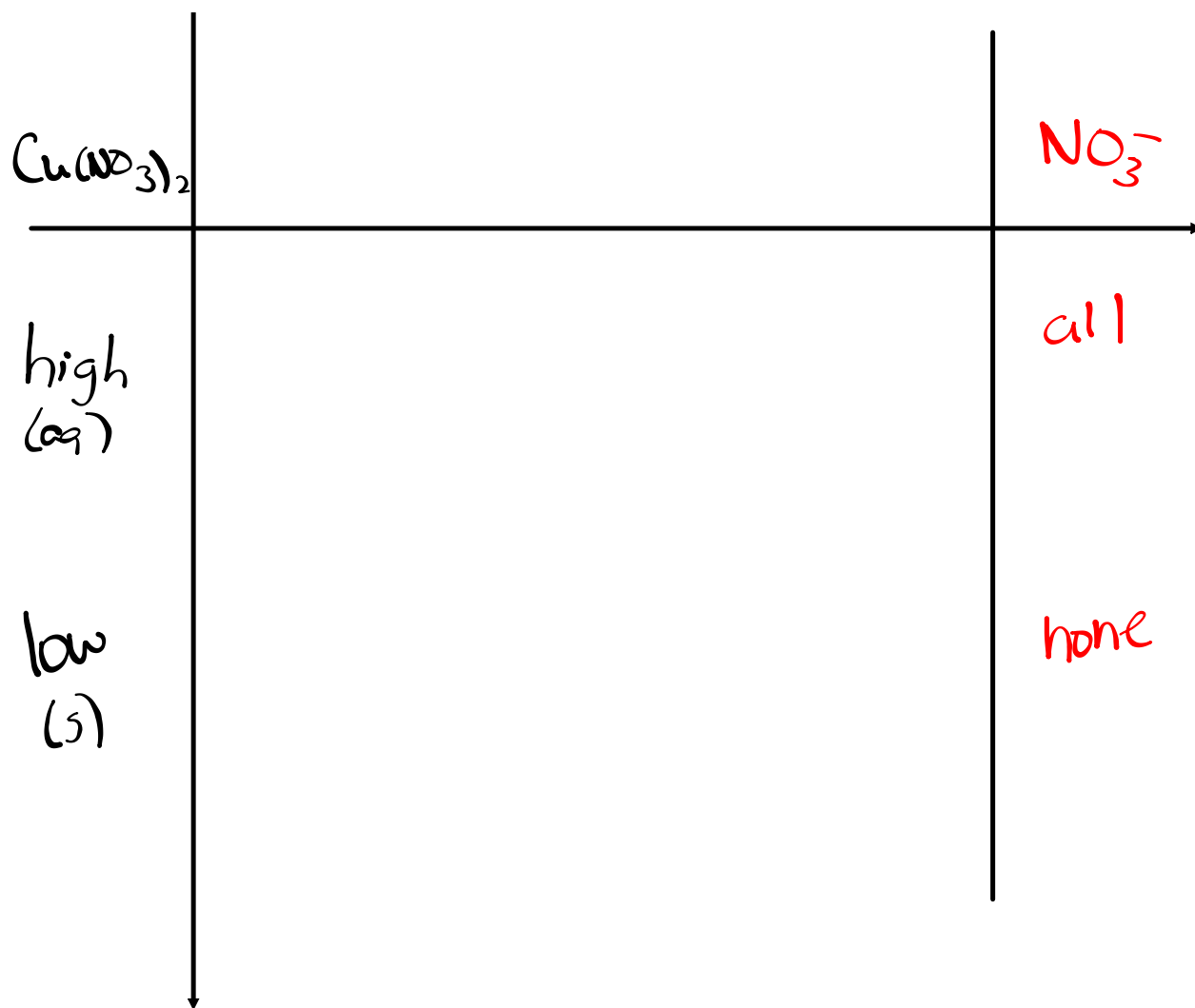
### IV. Single Replacement Reaction

Reaction of an element with a compound to produce a new element and an ionic compound.

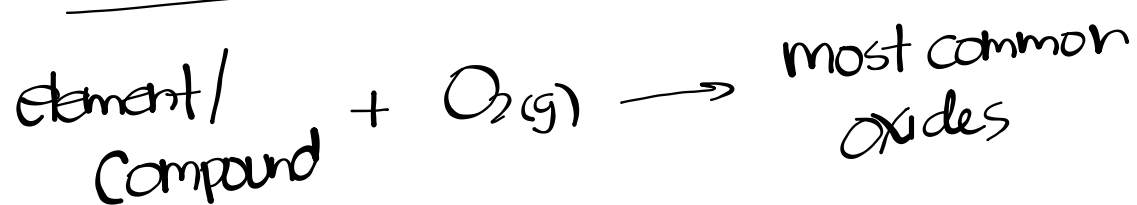
⇒ usually occurs in aqueous solution \*

⇒ reaction will only occur if the element is replacing a less reactive element (see table 11.2)

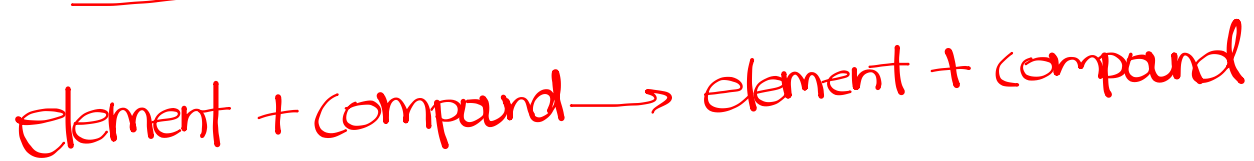


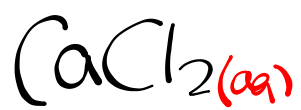


## COMBUSTION

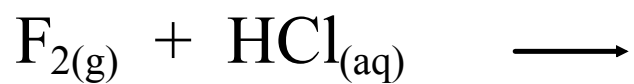


## SINGLE REPLACEMENT





## Practice Problems



## Solubility Rules

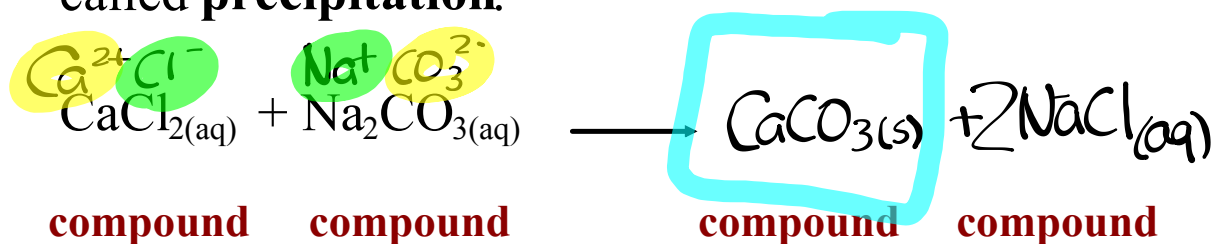
- Group 1 Compounds have a high solubility  $\text{NaCl}, \text{Na}_2\text{SO}_4, \text{KNO}_3 \dots$
- Compounds containing ammonium ( $\text{NH}_4^+$ ) have a high solubility  $\text{NH}_4\text{Cl}, \text{NH}_4\text{Br} \dots$
- All acids have a high solubility  $\text{HCl}, \text{CH}_3\text{COOH}$
- Elements have a low solubility (except chlorine)
- Solubility varies for molecular compounds

# Chemical Reactions

## V. Double Replacement Reaction

Reaction that occurs between two ionic compounds in solution. Ions will "change partners".

⇒ if one of the products has low solubility, it may form a precipitate (solid). This double replacement reaction is called **precipitation**.



A second type of double replacement reaction is **neutralization** reaction, which is a reaction between an acid and a base, to form water and an ionic compound.

