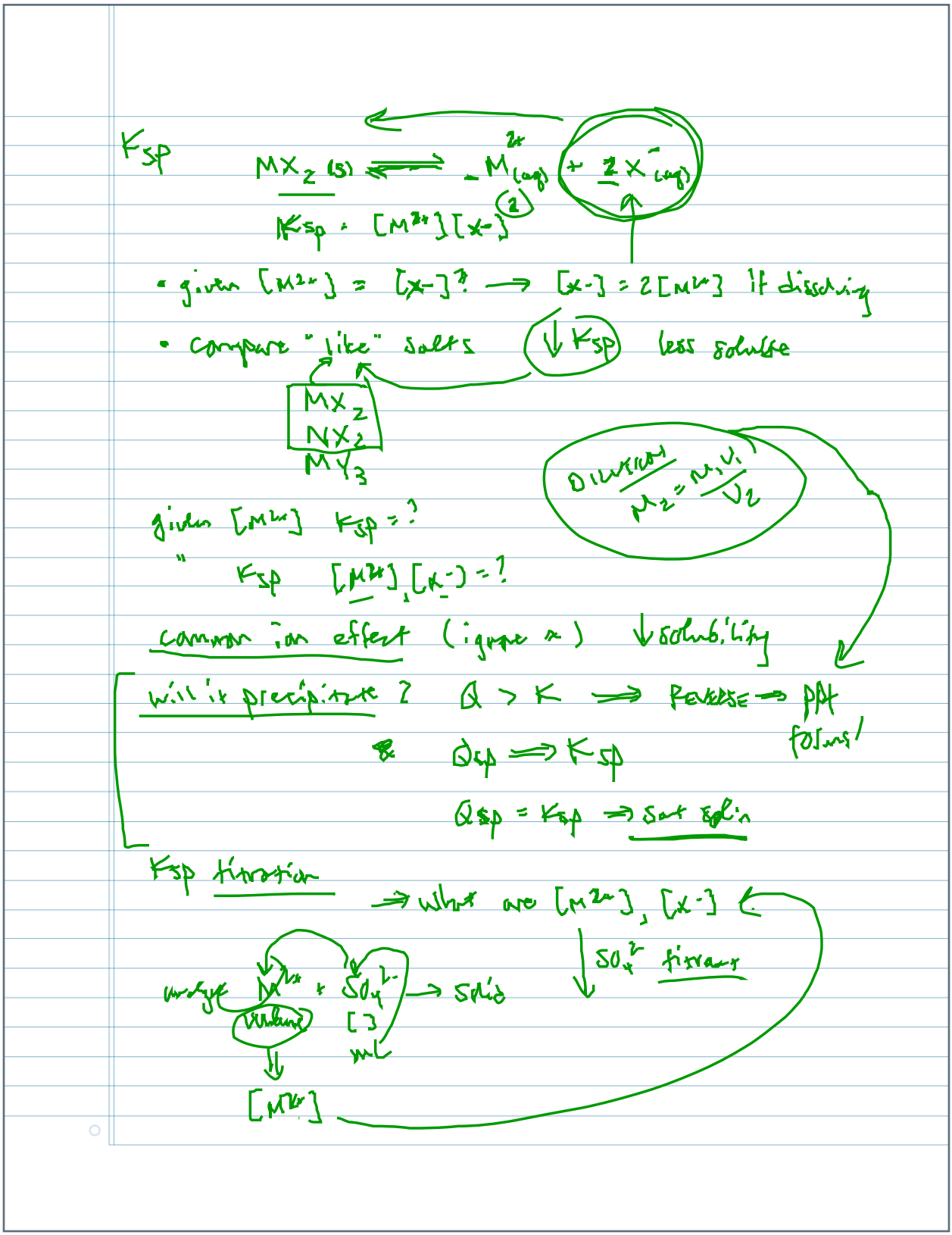

K_{sp}

$MX_2(s) \rightleftharpoons M^{2+}_{(aq)} + 2X^-_{(aq)}$

$K_{sp} = [M^{2+}][X^-]^2$

- given $[M^{2+}] = [X^-]$? $\rightarrow$ $[X^-] = 2[M^{2+}]$ if dissolving
- compare "like" salts $\downarrow K_{sp}$ less soluble

MX_2
NX_2
MY_3

given $[M^{2+}]$ K_{sp} = ?

" K_{sp} $[M^{2+}]$, $[X^-]$ = ?

Dilution $M_2 = \frac{M_1 V_1}{V_2}$

common ion effect (ignore x) $\downarrow$ solubility

will it precipitate? $Q > K \Rightarrow$ Reverse $\rightarrow$ ppt forms!

& $Q_{sp} \Rightarrow K_{sp}$

$Q_{sp} = K_{sp} \Rightarrow$ sat soln

K_{sp} titration $\Rightarrow$ what are $[M^{2+}]$, $[X^-]$

SO_4^{2-} titrant

analyte M^{2+} + SO_4^{2-} $\rightarrow$ solid

volume [ ] mL

$[M^{2+}]$