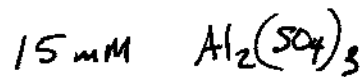
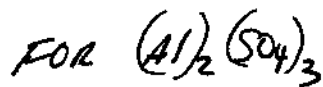


EXTRA PROBLEM 3A

$$[\text{Al}^{3+}] = 30 \text{ mM}$$

$$[\text{SO}_4^{2-}] = 45 \text{ mM}$$

THE CONCEPT HERE IS THAT $\sum c_i z_i^2$ SHOULD BE EQUAL FOR THE TWO SOLUTIONS.



$$\sum c_i z_i^2 = (30)(3)^2 + (45)(2)^2$$
$$= 450 \text{ mM}$$



$$\sum c_i z_i^2 = x(2)^2 + x(2)^2$$
$$= 8x$$

$$8x = 450 \text{ mM}$$

$$\underline{\underline{x = 56.3 \text{ mM}}}$$

NOTE:
DONT NEED
TO CHANGE
UNITS
HERE!