**Metal-Ligand Complexes of Platinum**

Determine the structural formulas for the following complexes that contain platinum, ammonia, and chloride ions. If you mix compounds (a) and (d) you obtain a green solid known as Magnus's salt. What is its likely formula?

| compound | empirical formula | free chlorides | ions/Pt |
|---|---|---|---|
| a | $PtCl_2(NH_3)_4$ | 2 | 3 |
| b | $PtCl_2(NH_3)_2$ | 0 | 0 |
| c | $PtCl_2(NH_3)_2$ | 0 | 0 |
| d | $K_2PtCl_4$ | 0 | 3 |

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