

### Solubility Rules Applications

Classify the following ionic compounds as soluble (S) or insoluble (I).

LiCl _____	Ba(NO <sub>3</sub> ) <sub>2</sub> _____	CaSO <sub>4</sub> _____	(NH <sub>4</sub> ) <sub>3</sub> PO <sub>4</sub> _____
PbI <sub>2</sub> _____	Sr(NO <sub>3</sub> ) <sub>2</sub> _____	Na <sub>2</sub> SO <sub>4</sub> _____	FeSO <sub>4</sub> _____
BaSO <sub>4</sub> _____	Cu(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> _____	CaF <sub>2</sub> _____	HBr _____
HNO <sub>3</sub> _____	NH <sub>4</sub> Cl _____	KF _____	AgCl _____
MgBr <sub>2</sub> _____	AgI _____	Pb(NO <sub>3</sub> ) <sub>2</sub> _____	KBr _____
SrSO <sub>4</sub> _____	NaC <sub>2</sub> H <sub>3</sub> O <sub>2</sub> _____	KClO <sub>4</sub> _____	Fe(NO <sub>3</sub> ) <sub>3</sub> _____

(a) Write and balance these word equations.

(b) Predict which reactions would form a precipitate and identify the compound that is the precipitate.

