$\qquad$

Write the formula in the box that is a result of the row intersecting the column. Remember that a polyatomic ion must stay intact and go in parentheses if a number gets criss-crossed down to it. You also need to reduce if you can.

|  | $\mathrm{Cl}^{1+}$ | $\mathrm{O}^{2-}$ | $\mathrm{N}^{3}$ | $\mathrm{OH}^{+}$ | $\mathrm{NO}_{3}{ }^{1}$ |  | $\mathrm{SO}_{4}{ }^{2}$ | $\mathrm{PO}_{4}{ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{H}^{+}$ | HCl | $\mathrm{H}_{2} \mathrm{O}$ | $\mathrm{H}_{3} \mathrm{~N}$ | $\mathrm{H}(\mathrm{OH}) \times \mathrm{H}_{2}$ | $\mathrm{HNO}_{3}$ | $\mathrm{H}_{2} \mathrm{CO}_{3}$ | $\mathrm{H}_{2} \mathrm{SO}_{4}$ | $\mathrm{H}_{3} \mathrm{P}_{4}$ |
| $\mathrm{Na}^{+}$ | NaCl | $\mathrm{Na}_{2} \mathrm{O}$ | $\mathrm{Na}_{3}$ | NaOH | $\mathrm{NaNO}_{3}$ | $\mathrm{Na}_{2} \mathrm{CO}_{3}$ | $\mathrm{Na}_{2} \mathrm{SO}_{4}$ | Na, Pay |
| $\mathrm{Mg}^{2+}$ | $\mathrm{MgCl}_{2}$ | $m_{g}$ | $m_{93}$ | $\mathrm{mg}_{\mathrm{g}(0)_{2}}$ | $m_{9}$ | $\mathrm{maCO}_{3}$ |  |  |
| $\mathrm{K}^{+}$ | KC | $\mathrm{K}_{2} \mathrm{O}$ | $\mathrm{K}_{3} \mathrm{~N}_{2}$ | KOH | $\mathrm{kNO}_{3}$ | $\mathrm{K}_{2} \mathrm{CO}$ | $\mathrm{K}_{2} \mathrm{SO}_{4}$ |  |
| $\mathrm{Al}^{3+}$ | $\mathrm{AlCl}_{3}$ | $\mathrm{Al}_{2} \mathrm{O}_{3}$ | AIN | $\left.\mathrm{Al}^{(\mathrm{OH}}\right)^{3}$ | $\left(\mathrm{NO}_{3}\right)_{3}$ | $A_{2}(0,0)$, | $\mathrm{Al}_{2}(50$ | $\mathrm{APO}_{4}$ |
| $\mathrm{Ca}^{2+}$ | $\mathrm{CaCl}_{2}$ | $\mathrm{Ca}_{4}{ }^{\text {d }}$ | $\mathrm{Ca}_{3} \mathrm{~N}_{2}$ | ( OH$)^{2}$ | $\mathrm{Ca}\left(\mathrm{NO}_{3}{ }_{2}\right.$ | Ca | Cas |  |
| $\mathrm{NH}_{4}^{+}$ | $\mathrm{NH}_{4} \mathrm{C}$ | $(\mathrm{NH})_{2} \mathrm{O}$ | $(\mathrm{NH})_{3} \mathrm{~N}$ | NH, OH | $\mathrm{NH}_{4} \mathrm{NO}_{3}$ | $\left(\mathrm{NH}_{2} \mathrm{CO}_{3}\right.$ | $(\mathrm{NHH})_{2} \mathrm{SO}_{4}$ |  |
| $\mathrm{Pb}^{2+}$ | $\mathrm{PbCl}_{2}$ | PbO | $\mathrm{Pb}, \mathrm{N}_{2}$ | $\mathrm{Pb}_{\mathrm{L}}(\mathrm{OH})_{2}$ | $\mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}$ | $\mathrm{PbCO}_{3}$ | PbSO |  |
| $\mathrm{Pb}^{4+}$ | $\mathrm{PbCl}_{4}$ | $\mathrm{PbO}_{2}$ | $\mathrm{Pb}_{3} \mathrm{~N}_{4}$ | $\mathrm{Pb}_{6}(\mathrm{OH})_{4}$ | P(No | Pb (0, $\mathrm{c}_{2}^{\text {cia }}$ | Pb(Sod) |  |
| $\mathrm{Fe}^{2+}$ | $\mathrm{FeCl}_{2}$ | FeO | ${ }_{5} \mathrm{~N}_{2}$ | $\mathrm{Fe}(\mathrm{OH})_{2}$ | Fe( $\mathrm{N}^{\text {a }}$ | $\mathrm{FeCO}_{3}$ | $\mathrm{FeSO}_{4}$ | $\mathrm{Fe}_{3}\left(\mathrm{~Pa}_{4} \mathrm{l}_{2}\right.$ |
| Fe ${ }^{3}$ | $\mathrm{FeCl}_{3}$ | $\mathrm{Fe}_{2} \mathrm{O}_{3}$ | Fen | $\mathrm{Fe}(\mathrm{OH})_{3}$ | $\mathrm{Fe}\left(\mathrm{NO}_{3}\right)^{\prime}$ | $\overline{e r}_{2}(10)_{3}$ | $\mathrm{F}_{2} \mathrm{SO}_{2} \mathrm{O}_{3}$ | FepO4 |

