Name ends in Acid?

START

No

Name ends in -ous?

Yes

Change –ous to –ite, ID the anion & add enough H+ to make neutral

No

Name ends in -ic?

Yes

Change –ic to –ate, ID the anion & add enough H+ to make neutral

No

Prefixes are used to specify amount?

Yes

Use the prefixes to determine the # of each element present in the compound

No

Write out the symbols and charge of each ionic component. Determine the lowest common multiple between the charges. Determine how many of each ion is required to reach the common multiple and use those numbers as a subscript for each ion. Making sure to use parenthesis if it is a polyatomic ion.

Hydro- prefix?

Yes

Change –ic to –ate, ID the anion & add enough H+ to make neutral

No

Change –ic to –ide, drop hydro-, ID the anion & add enough H+ to make neutral
H+ is being used as the cation & (aq) is at the end of the name

START

H+ is being used as the cation & (aq) is at the end of the name

Anion is monoatomic?

START

Anion is monoatomic?

Yes

No

Anion is polyatomic?

Yes

No

Anion ends in -ate

Yes

No

Change –ate to –ic and add acid at the end

No

Change –ite to –ous and add acid at the end

Only two non-metals are present?

START

Only two non-metals are present?

Yes

No

Use the prefixes to specify the amount of each atom present. Only use Mono- for the second atom. Make sure to change the Suffix of the second atom to -ide

Use the name of the cation and anion present. Making sure to specify the charge of the cation if it has multiple charges. Remember the formula given has to have a neutral charge.

Example: Sb₂O₅

Overall Charge is zero. Charge of O is -2. There are 5 O’s giving a -10 charge
Since there are 2 Sb’s the following formula can be solved for X which is the charge of Sb.

2X-10=0
X=5

Change –ide to –ic, add Hydro-Prefix, and add acid at the end

Change –ide to –ic, add Hydro-Prefix, and add acid at the end

Change –ate to –ic and add acid at the end

Formula to Name
Dr. Kim – Ver. 0.5