

- 1- Binary acids are aqueous solutions of compounds composed of hydrogen and a non-metal from Groups VI and VIIA. Name the following binary acids:

HCl hydrochloric acid

HF hydrofluoric acid

H₂Se hydroselenic acid

HI hydroiodic acid

H₂S hydrosulfuric acid

HBr hydrobromic acid

- 2- HCN is classified as a pseudobinary acid and is named just like a binary acid. What is the name of HCN? Remember, the CN⁻ ion is the cyanide ion!

Hydrocyanic acid

- 3- Name and write the formula for the 8 common strong bases.

LiOH Lithium Hydroxide
NaOH Sodium Hydroxide
KOH Potassium Hydroxide
RbOH Rubidium Hydroxide
CsOH Cesium Hydroxide
Ca(OH)₂ Calcium Hydroxide
Ba(OH)₂ Barium Hydroxide
Sr(OH)₂ Strontium Hydroxide

- 4- Most weak bases are derivatives of what common weak base?

Ammonia NH₃

- 5- Ternary acids contain H, O, and a nonmetal. Name the following ternary acids: (Review the polyatomic ions nomenclature if you feel you have forgotten a few!)

HNO₂ nitrous acid

HNO₃ nitric acid

HIO₄ periodic acid

HIO₃ iodic acid

HIO₂ iodous acid

HIO hypoiodous acid

H₃PO₄ phosphoric acid

H₂PO₃ phosphorous acid

6- Name the following organic acids:

HCOOH Methanoic acid (common name is formic acid)

CH₃COOH Ethanoic acid (common name is acetic acid)

7- Write the formulas of the following acids:

Hypochlorous acid HClO Chlorous acid HClO₂

Perchloric acid HClO₄ Hydrochloric acid HCl

Chloric acid HClO₃ Carbonic acid H₂CO

Propanoic acid CH₃CH₂COOH Hydrosulfuric acid H₂S

Sulfuric acid H₂SO₄ Sulfurous acid H₂SO₃