CALCULATE CHARGE & NAME:

(1.) Mn_2O_3

$2Mn + 3O = \emptyset$

$2(x) + 3(-2) = 0$

$2x - 6 = 0$

$+6 \quad +6$

$\frac{2x}{2} = \frac{6}{2}$

$x = +3$

Manganese (III) Oxide

(2.) Ag_2S

$2Ag + 1S = \emptyset$

$2(x) + (-2) = 0$

$2x - 2 = \emptyset$

$+2 \quad +2$

$\frac{2x}{2} = \frac{2}{2}$ $\quad x = 1$

Silver (I) Sulfide

(3.) $Zn(SO_4)$ *polyatomic ion

$Zn + SO_4 = \emptyset$

$x + (-2) = \emptyset$

$+2 \quad +2$

$x = 2$

Zinc (II) Sulfate

(4.) $NiCl_2$

$Ni + 2Cl = \emptyset$

$x + 2(-1) = \emptyset$

$x - 2 = \emptyset$

$+2 \quad +2$

$x = +2$

NICKEL (II) CHLORIDE

(5.) TiO_2

$Ti + 2O = \emptyset$

$x + 2(-2) = \emptyset$

$x - 4 = \emptyset$

$+4 \quad +4$

$x = +4$

Titanium (IV) OXIDE

(6.) $AgNO_3$

$Ag + NO_3 = \emptyset$

$x + (-1) = \emptyset$

$+1 \quad +1$

$x = +1$

SILVER (I) NITRATE

(7.) $Cu_3(PO_4)_2$

$3Cu + 2(PO_4) = \emptyset$

$3(x) + 2(-3) = 0$

$3x - 6 = 0$

$+6 \quad +6$

$\frac{3x}{3} = \frac{6}{3}$

$x = 2$

Copper (II) PHOSPHATE

How to go from the name to the formula:

(1.) First write out ions w/charges.

(2.) Swap / drop / reduce

Ex:

(1.) Aluminum Bromide

Al^{+3} Br^{-1}

$AlBr^{+2}$

Al_1Br_3

(2.) Beryllium Nitrate

Be^{+2} NO_3^{-1}

$Be(NO_3)_2$

(3.) Palladium (III) Oxide

Pd^{+3} O^{-2}

Pd_2O_3

(4.) Ammonium Sulfate

NH_4^{+1} ~~SO_4^{-2}~~

$(NH_4)_2(SO_4)_1$

(5.) Zinc (II) Phosphate

Zn^{+2} PO_4^{-3}

$Zn_3(PO_4)_2$