

writing neutral compounds with algebra

neutral = no charge

Potassium chloride

①+2



③ $x(+1) + y(-1) = 0$

total
pos.
charge

total
neg.
charge

④ $1(+1) + 1(-1) = 0$



① write symbols

② add charges

③ how many of each?

④ double check that it is neutral!

⑤ rewrite as a compound

⑥ simplify!

Silver fluoride



$$x(+1) + y(-1) = 0$$

$$1(+1) + 1(-1) = 0 \checkmark$$

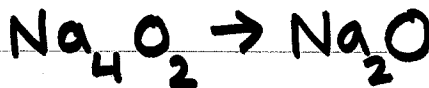
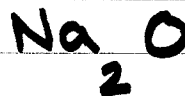


Sodium oxide



$$x(+1) + 1(-2) = 0$$

$$2(+1) + 1(-2) = 0 \checkmark$$



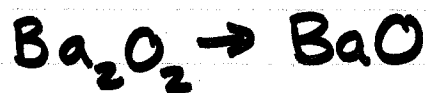
Copper (II) fluoride



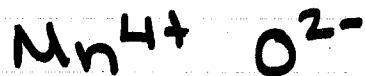
$$1(+2) + x(-1) = 0$$



Barium oxide



manganese (IV) oxide



$$1(+4) + x(-2) = 0$$

$$x = 2$$



magnesium
Borate



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

$$x = 3 \quad y = 2$$

$$3(+2) + 2(-3) = 0 \quad \checkmark$$

