

# Naming Multivalent Metals

metals that have more than 1 charge

ex. Cu  $\rightarrow$  +2, +1

Mn  $\rightarrow$  +2, +3, +4

so which one do we use??!!

$VI_5$  vanadium iodide

+4? OR +5?  
 $VI_4$        $VI_5$

Based on formula Iodine has a charge of -1. There are 5 iodines, which totals a charge of -5 so... vanadium has to have a charge of +5 to equal that of iodine.

To indicate which charge is used we use roman numerals in parentheses after the metal in question.

$VI_5 \rightarrow$  vanadium (V) iodide

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$TiS_2 \rightarrow$  titanium(IV) sulfide  
 $+4$        $-2 \times 2 = -4$

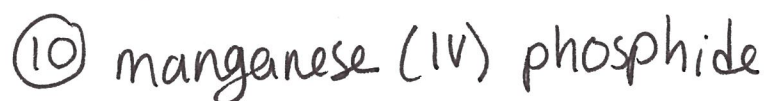
$Mn_3N_4 \rightarrow$  manganese (IV) nitride  
 $+2$        $-3 \times 4 = -12$

Chromium (III) oxide  $\rightarrow$   $Cr^{+3} O^{-2} \rightarrow Cr_2O_3$

iron (II) fluoride  $\rightarrow$   $Fe^{+2} F^{-1} \rightarrow FeF_2$

# Practice questions (answers below)

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DONT PEAK → ANSWERS ↓

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