Practice: Roman Numeral Transitional Metal Compound Formulas… name: _____

Naming rules: metal cation first, if there is more than one + number in the top right corner of the box on the Periodic Table, you must use a RN (Roman Numeral).

The RN matches the cation charge.
Nonmetal anions on Periodic table change their endings to –IDE.
Never change the names of polyatomic anions.

+1	+2	+3	+4	+5	+6	+7
I	II	III	IV	V	VI	VII

Look over these examples, do the bottom, ALWAYS write out the ions.

Easy	Cation	Anion	Formula	Stock Names
	Ag^{+1}	Cl^{-1}	AgCl	Silver chloride, no RN needed here
	Ti^{+2}	O^{-2}	TiO	Titanium II oxide, RN for Ti^{+2} is the RN II, this is 1:1 ratio
	Ti^{+3}	O^{-2}	Ti_2O_3	Titanium III oxide, Rn matches cation charge, criss cross
	Ti^{+4}	O^{-2}	TiO_2	Criss cross gives you Ti_2O_4, John Dalton says simple whole number ratios! Not hard, but think!
Medium	Pd^{+2}	S^{-2}	PdS	Pd_2S_2 becomes PdS 1:1 ratio, palladium II sulfide
	Pd^{+4}	Se^{-2}	$PdSe_2$	Pd_2Se_4 becomes $PdSe_2$ in a 1:2 ratio, palladium IV selenide
	Nb^{+3}	P^{-3}	NbP	Criss cross creates 1:1 ratio, Niobium III phosphide
Hard	Cr^{+6}	O^{-2}	CrO_3	chromium VI oxide, Cr_2O_6 becomes CrO_3
	Re^{+6}	N^{-3}	ReN_2	Re_3N_6 becomes a 1:2 ratio, Rhenium VI nitride
	Os^{+4}	S^{-2}	OsO_2	Osmium IV oxide, the Os_2O_4 becomes a 1:2 ratio
	Mn^{+7}	CO_3^{-2}	$Mn_2(CO_3)_7$	Manganese VII carbonate, RN and polyatomic anion

DO	Cation	Anion	Formula	Stock Names
				Platinum IV oxide
				Manganese IV sulfide
				Iridium IV sulfite
	W^{+6}	PO_4^{-3}		
			$Pb(Cr_2O_7)_2$	
				Chromium III phosphate