(1) Draw structures and give the formal oxidation state and valance electron count of the metal for the following compounds:

a) $[Mo(\eta^6\text{-}C_6H_6)_2]$

b) $[Cp_2ZrCl(OMe)]$

c) $[(PMe_3)_2Pd(\eta^3\text{-}C_3H_5)]Cl$

d) $[Re(CO)_5Et]$
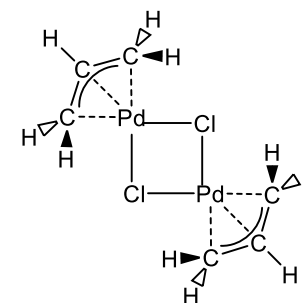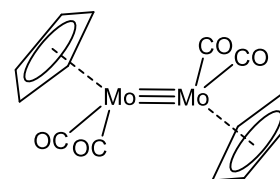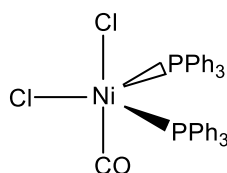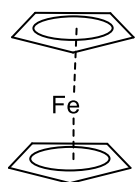
e) $[(dppe)Pt(OMe)_2]$ (dppe = $Ph_2PCH_2CH_2PPh_2$)

f) $[\eta^{5\text{-}}Cp^*Ru(PMe_3)_2(Cl)\,]$ (Cp* = $\text{-}C_5Me_5$)

g) $[CpW(PMe_3)_3(H)_2]^+$
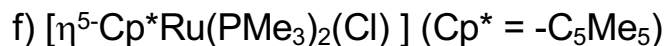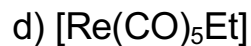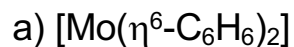
Give the formal oxidation state and electron count of the metal for the following compounds
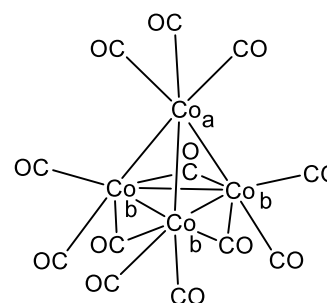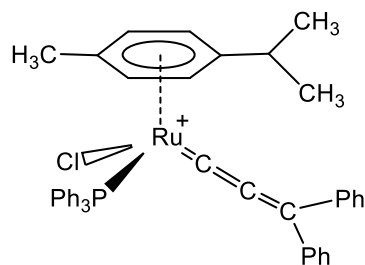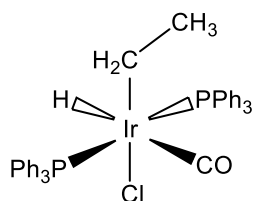
Draw the structure of a complex of empirical formula
[Re(CO)$_3$Cl] that obeys the 18 electron rule.