1.60 Key: overall formula should have no net charge
(a) BaO
(b) \((\text{NH}_4\)\)\(_2\)\(\text{CO}_3\)

1.63 (a) By analogy of the perchlorate ion (Table 1.2), perchlorate is \(\text{B}_\text{rO}_4^-\)
(b) \(\text{HSO}_3^-\) (analogy to hydrogen carbonate)
(c) \(\text{HPO}_4^{2-}\)

1.71 (a) Since it’s combined with \(O^2-\), it’s \(\text{Fe}^{2+}\)
\(\implies\) iron (II) oxide
(b) iron (III) oxide
(c) 2 non-metals: dinitrogen trioxide
(d) sulfur hexafluoride
(e) titanium (III) nitride
\(\uparrow\) since nitride is \(N^3-\)

1.72 (a) \(\text{CaCl}_2\)
(b) \(\text{CoCl}_2\)
(c) \(\text{I}_2\text{Cl}_3\)
(d) \(\text{Na}_2\text{S}\)
(e) \(\text{P}_4\text{S}_7\)