

## PRACTICE: LEWIS STRUCTURES AND MOLECULAR GEOMETRY

For each molecule or polyatomic ion, draw the Lewis structure, and draw and name the shape.

- (a) beryllium dihydride,  $\text{BeH}_2$
- (b) nitrogen trichloride,  $\text{NCl}_3$
- (c) methane,  $\text{CH}_4$
- (d) sulfur dioxide,  $\text{SO}_2$
- (e) boron trihydride,  $\text{BH}_3$
- (f) sulfur tetrafluoride,  $\text{SF}_4$
- (g) phosphorus pentafluoride,  $\text{PF}_5$
- (h) chlorine trifluoride,  $\text{ClF}_3$
- (i) sulfur hexafluoride,  $\text{SF}_6$
- (j) xenon difluoride,  $\text{XeF}_2$
- (k) selenium dichloride,  $\text{SeCl}_2$
- (l) xenon tetrafluoride,  $\text{XeF}_4$
- (m) iodine pentafluoride,  $\text{IF}_5$
- (n) chlorine dioxide,  $\text{ClO}_2$
- (o) phosphate ion,  $\text{PO}_4^{3-}$
- (p) nitrate ion,  $\text{NO}_3^-$
- (q) bromate ion,  $\text{BrO}_3^-$
- (r) arsenic oxide trifluoride,  $\text{AsOF}_3$