Answers to problems in page 217.

26. a. sulfur tetrafluoride

b. xenon tetrafluoride

c. phosphorus pentabromide

d. dinitrogen pentoxide

e. trisilicon tetranitride

f. phosphorus tribromide

g. trineptunium octoxide

Mixed Review

37. a.

b.

38. a. SCl₂ is bent. Both PF₃ and NCl₃ are trigonal pyramidal.

b. The bond angles of all three molecules are similar.
However, the electronegativity difference is greatest between P and F, so PF₃ is the most polar.

39.

$$\begin{bmatrix} :\ddot{o}:\\ N\\ o, & o \end{bmatrix} \longleftrightarrow \begin{bmatrix} :\ddot{o}:\\ N\\ o, & o \end{bmatrix} \longleftrightarrow \begin{bmatrix} :\ddot{o}:\\ N\\ o, & o \end{bmatrix}$$

40