



7. Draw each of the following structures. Indicate whether each has polar or nonpolar bonds.

a)  $\text{CO}_2$

c)  $\text{CH}_4$

Polar bonds? \_\_\_\_\_

Polar bonds? \_\_\_\_\_

Polar overall? \_\_\_\_\_

Polar overall? \_\_\_\_\_

Bond angle: \_\_\_\_\_

Bond angle: \_\_\_\_\_

Shape: \_\_\_\_\_

Shape: \_\_\_\_\_

b)  $\text{SO}_2$

d)  $\text{NH}_3$

Polar bonds? \_\_\_\_\_

Polar bonds? \_\_\_\_\_

Polar overall? \_\_\_\_\_

Polar overall? \_\_\_\_\_

Bond angle: \_\_\_\_\_

Bond angle: \_\_\_\_\_

Shape: \_\_\_\_\_

Shape: \_\_\_\_\_