

## Main Topics on Unit 3 Test

- naming compounds
- writing formulas from names
- percent mass
- molar mass
- converting from g to mol and mol to g
- Lewis structures
- VSEPR
  - including name, bond angles, and polarity

Practice Problem 1, for  $\text{CO}_3^{2-}$

- a) name the compound
- b) draw the Lewis structure
- c) draw the VSEPR (with bond angles)
- d) name the VSEPR shape

Practice Problem 2, for  $\text{OF}_2$

- a) name the compound
- b) draw the Lewis structure
- c) draw the VSEPR (with bond angles)
- d) name the VSEPR shape

Practice Problem 3, for  $\text{PCl}_3$

- a) name the compound
- b) draw the Lewis structure
- c) draw the VSEPR (with bond angles)
- d) name the VSEPR shape

Practice Problem 4 - Name the following:

- a)  $\text{CaCl}_2$
- b)  $\text{Ba}(\text{OH})_2$
- c)  $\text{Rb}_3\text{O}$
- d)  $\text{P}_2\text{Br}_4$

Practice Problem 5 - Write the formula for each

- a) potassium bromide
- b) sulfur monochloride
- c) aluminum hydroxide
- d) xenon tetranitride

Practice Problem 6 - find the molar mass and percent mass of each element.

- a)  $\text{CaCl}_2$
- b)  $\text{P}_2\text{Cl}_4$
- c)  $\text{RbF}$