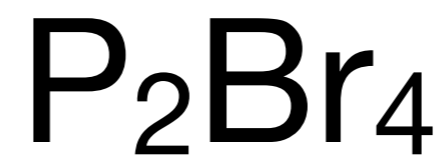


Unit 4: Covalent Bonding Jeopardy

Naming and Formulas

Name the following:



Naming and Formulas

Name the following:



Naming and Formulas

Write the formula for

lead(II) phosphate

Naming and Formulas

Write the formula for

sulfide

Bond Stuff

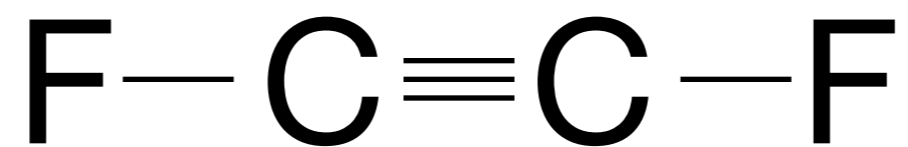
Classify the bond as
nonpolar covalent, polar
covalent, or ionic:
C (2.5) and Si (1.8)

Bond Stuff

Use hybridization to describe how boron creates 3 identical orbitals. What are the new orbitals called? Why are they called this?

Bond Stuff

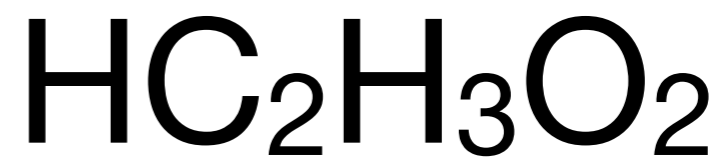
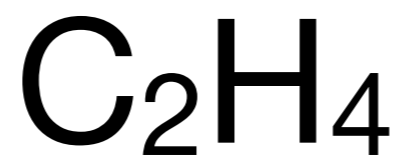
How many sigma bonds and how many pi bonds are in the following molecule?



Bond Stuff

Which of the following has the longest C-C bond?

Which has the strongest C-C bond?

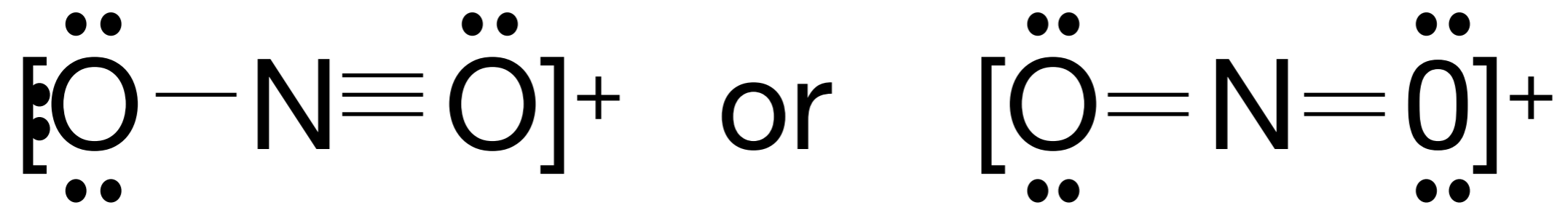


Lewis Structures

Draw the resonance structures for PO_3^-

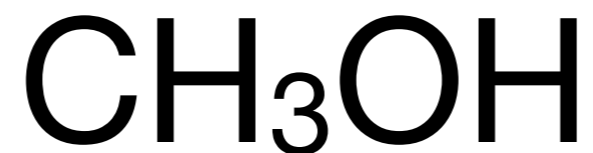
Lewis Structures

Use formal charge to
determine the most likely
structure:



Lewis Structures

Calculate the bond energy needed to break all the bonds in the following:



Lewis Structures

Calculate the bond energy needed to break all the bonds in the following:



VSEPR

Which of the following molecules are polar?



VSEPR

Which of the following molecules are nonlinear?



VSEPR

What is the molecular structure of SOCl_2 ?

VSEPR

Which of the following molecules has a dipole?



Word Problems

Describe the bond between
S and Br using

- orbital diagrams
- Lewis structures
- overlapping orbital shapes with delta symbols
- words (include polarity)

Word Problems

Describe why O_2 is diatomic.
Use orbital diagrams and
Lewis Structure in your
explanation.

Word Problems

What is the VSEPR model based on?
(hint: think about what causes the shapes)