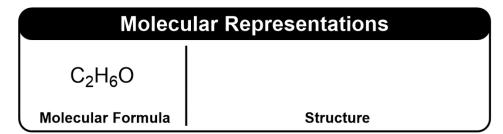
CONCEPT: STRUCTURAL FORMULA

- Molecular formulas are insufficient for organic compounds because they do not convey ________
 - □ **Structural Information:** connectivity and orientation.
 - Connectivity: how atoms are connected to each other.
 - Orientation: will be discussed later.

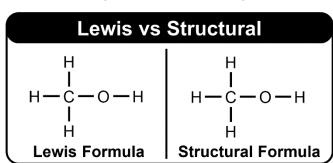


EXAMPLE: Which of the following statements is incorrect about molecular formulas and molecular structures?

- a) Molecular formula and structure show which atoms are present in a molecule.
- b) Molecular structure cannot be used to calculate molecular weight.
- c) Molecular formula is sufficient to show the composition of a compound.
- d) Molecular structure shows how atoms are connected to each other.

Structural Formula: shows how atoms in a compound are ______ to one another.

□ Same as _____ structure except we do not show lone pairs.



EXAMPLE: Draw a structural formula for C₂H₆.

CONCEPT: STRUCTURAL FORMULA PRACTICE: Propane (C ₃ H ₈) is a component of liquified petroleum gas. Draw a structural formula for propane. (Hint: Carbon
makes four bonds.)
PRACTICE: Methylamine (CH₅N) is a gaseous compound with a fishy smell. Draw this molecule using structural formula.