
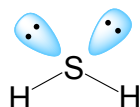


CONCEPT: ELECTRON GEOMETRY

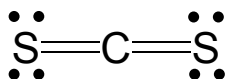
- The simplest system for geometrical shapes that focuses on the number of _____ around the central element.
 - Treats lone pairs and surrounding elements as the _____.

Electron Geometry			
Electron Groups	Orbital Shapes	Electron Geometry	Memory Tool
2		_____	____ points in a straight _____.
3		_____	Tri = _____.
4		_____	Tetra = _____.
5		_____	____ (3) + ____ (2) = _____.
6		_____	 Octopus: _____ - _____ = 6.

EXAMPLE: Determine the electron geometry for the hydrogen sulfide molecule, H₂S.



PRACTICE: Determine the electron geometry for the carbon disulfide molecule, CS₂.



a) Linear

b) Bent

c) Trigonal planar

d) Tetrahedral

CONCEPT: ELECTRON GEOMETRY

- Recall, many possible Lewis Dot Structures exist, but there are rules to draw the best structure.

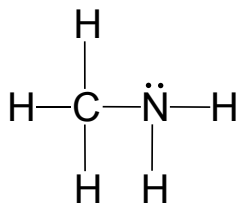
EXAMPLE: Determine the electron geometry for the following molecule: CH_2O .

PRACTICE: Determine the number of electron groups for the following cation: AsBr_2^+ .

- a) 2 b) 3 c) 4 d) 1

PRACTICE: Draw and determine the electron geometry for the following molecule: TeBr_4

PRACTICE: Determine the electron geometry of the nitrogen atom within methylamine, CH_3NH_2 .



- a) Linear b) Trigonal Pyramidal c) Tetrahedral d) Trigonal Planar