

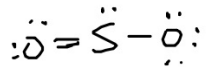
Molecular Shapes Note Sheet

Name: _____

VSEPR Theory

Learn these thirteen molecular shapes; know them by heart – their names, their bond angles and how to draw them.

AXE	ex
3-D sketch of molecular shape	
Name of shape	b.a.



b.a. = bond angle (not something else)

Hybrid.

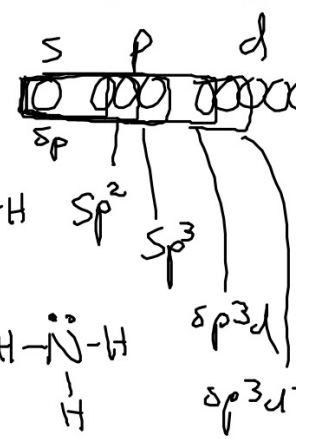
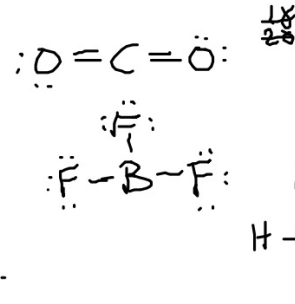
sp

AX ₂	CO ₂
1.	
linear	180°

sp^2

AX ₃	BF ₃
2.	
trigonal planar	120°

AX ₂ E	SO ₂
3.	
bent V-shaped	<120°

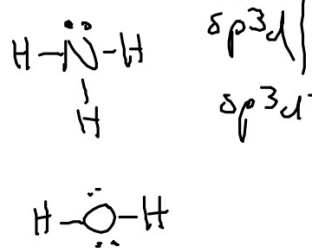


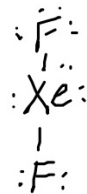
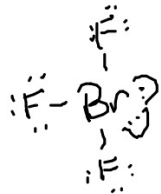
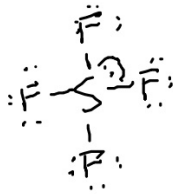
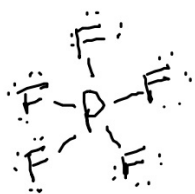
sp^3

AX ₄	CH ₄
4.	
tetrahedral	109.5°

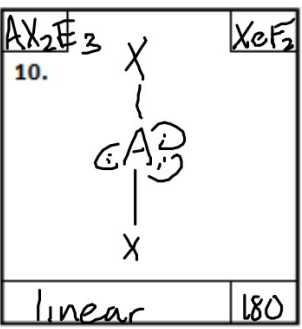
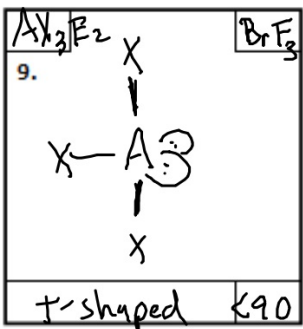
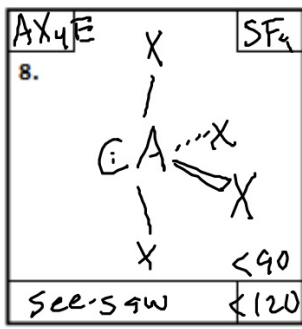
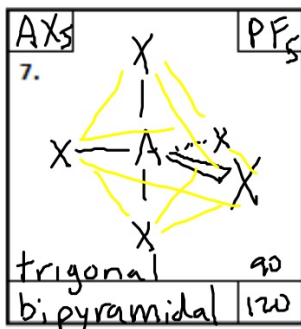
AX ₃ E	NH ₃
5.	
trigonal pyramidal	<109.5°

AX ₂ E ₂	H ₂ O
6.	
bent	<109.5°

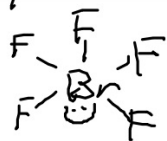
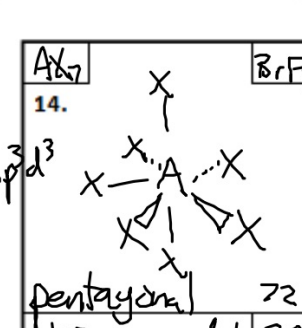
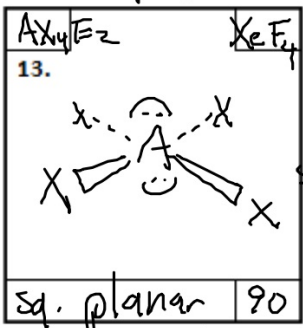
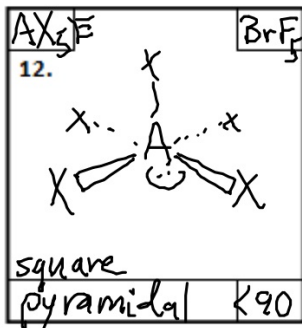
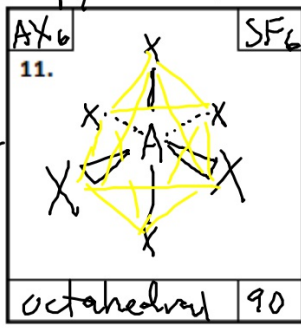




sp³d



sp³d²



11

