

Name _____ Period _____

College Prep Chemistry

Assignment 3M – Unit 3 Review

30 Points

Complete the four forms of the dot structure for the following elements

Element Group				
	N	N	N	N

Draw the molecular formulas including the lewis dot structures and covalent bonds

Element Group	1A	4A	5A	6A	7A	8A
Number Bonds	1	4	3	2	1	0
Number e ⁻ Pairs	0	0	1	2	3	4

O ₂	HNBr ₂	H ₂ SiBr ₂
O O	H Br N Br	Br H Si Br H

HPSe	SiPBr	H ₂ CO
H P Se	P Si Br	H O C H

Number	1	2	3	4	5	6	7	8	9	10
Prefix	mono	di	tri	tetra	penta	hexa	hepta	octa	nona	deca

Name or give the formula for the following molecules using the chart of prefixes above

Formula	Name	Formula	Name
H ₃ N		C ₂ Cl ₆	
Formula	Name	Formula	Name
	Silicon dioxide		Dicarbon Tetrafluoride

Calculate the Electronegativity for the following molecules, and polarity

Ionic – ED > 1.9	Polar – ED 0.5 – 1.9	Non-Polar – ED < 0.5
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Ba - F		H - N		F - Cl	
Elect. Ba	Elect. F	Elect. H	Elect. N	Elect. F	Elect. Cl
Electronegativity Difference		Electronegativity Difference		Electronegativity Difference	
Bond Type		Bond Type		Bond Type	

Calculate the electronegativity, then use the electronegativity and molecule structure to determine molecule polarity.

H ₂ O		Atomic Structure	
Elect. H	Elect. O	H O H	
Electronegativity Difference			
		Bond Type	Molecule Type