Dougherty Valley HS Chemistry
Bonding and Structure – Lewis St. atoms/Ionic/Single Bonds

Worksheet #5

Name: **Period:** **Seat#:**

Answer the following questions:

1) What is the octet rule? Explain its role in bonding between atoms	**2)** Indicate on top of each atom how many valence electrons each atom has, then below each atom indicate how many electrons must be gained or lost by each of the following atoms to achieve a stable electron configuration Sr Sb Si S Se Xe
3) Which of the following pairs of elements will make COVALENT molecules. Explain why or why not for each pair of elements. *Sulfur & Xenon* *Sodium & Calcium* *Strontium & Sulfur* *Selenium & Chlorine*	

Draw the Lewis Structure for the following atoms:

4) K	**5)** Ba	**6)** C	**7)** S
8) Br	**9)** Li	**10)** N	**11)** Al

Draw the Lewis Structure for the following ionic compounds:

12) KBr	**13)** BaS	**14)** Li_3N	**15)** NaBr

Draw the Lewis Structure for the following molecules:

16) H_2O # Valence e-: # Lone Pairs:	**17)** HF # Valence e-: # Lone Pairs:	**18)** BF_3 # Valence e-: # Lone Pairs:

19) Br_2 # Valence e-: # Lone Pairs:	**20)** HCl # Valence e-: # Lone Pairs:	**21)** ICl # Valence e-: # Lone Pairs:
22) CH_4 # Valence e-: # Lone Pairs:	**23)** PCl_5 # Valence e-: # Lone Pairs:	**24)** N_2H_4 # Valence e-: # Lone Pairs:
25) NH_3 # Valence e-: # Lone Pairs:	**26)** HOOH # Valence e-: # Lone Pairs:	**27)** CH_2Cl_2 # Valence e-: # Lone Pairs:
28) CH_3OH # Valence e-: # Lone Pairs:	**29)** SF_6 # Valence e-: # Lone Pairs:	**30)** NBr_3 # Valence e-: # Lone Pairs: