Identification of Alcohols by Chemical Tests ***Datasheet***

Name:_____ **Lab Section:** _____

1. For each of the chemical tests used in this experiment, indicate the specific functional group(s) that will be ***predicted*** to provide a positive test. Fill in your results in the table below. (15 points)

Chemical Tests	Predicted Functional Group(s)
Jones Test	
Lucas Test	
Iodoform Test	
Permanganate Test	
Bromine/Water Test	

2. Fill in the results for ***your specific compound*** (not all the possible functional groups but specifically which functional group is in your compound. For example, if the Jones test is positive, do not list both primary and secondary alcohols but pick which one of these is in your compound specifically) in the table below. (20 points)

Compound #			**Bench :**	
TEST	+	-	**Observations**	**Functional Group Present**
Jones Test				
Lucas Test				
Iodoform Test				
Permanganate Test				
Bromine/Water Test				

3. For each unknown compound tested at your bench, fill in the results of the chemical tests in the table below. *(Use your results and results from other students at your bench)* Fill in a plus (+) or minus (-) for each test and each compound. (20 points)

Compound	**___-1** *(fill in bench letter)*	**____-2** *(fill in bench letter)*	**____-3** *(fill in bench letter)*	**____-4** *(fill in bench letter)*
Jones Test				
Lucas Test				
Iodoform Test				
Permanganate Test				
Bromine/Water Test				

4. From the analysis of the results presented in question #4, identify which group of compounds (I-VI, provided in the experimental procedure) best corresponds to the compounds tested at your bench. List the compounds in the group and provide the structures. If there are inconsistencies between the group you propose and the experimental results, identify the inconsistencies. (25 points)

Group Number Proposed: _____
(Select I-VI)

Compound Number	**Name of Compound and Structure**	**Name of Test(s) that are Inconsistent**
___-1		
___-2		
___-3		
___-4		

5. Using the compound you identified as your unknown, draw the reaction mechanism of this compound with one of the chemical test reagents that gave a positive result. (20 points) *(Attached an additional sheet to draw the mechanism)*