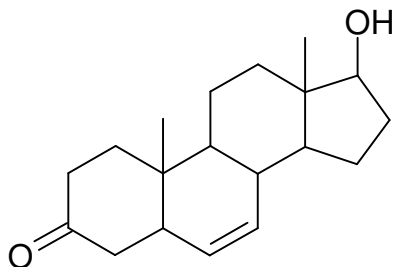


Name: \_\_\_\_\_

**Organic Chemistry Test #1 - Structures and Nomenclature**

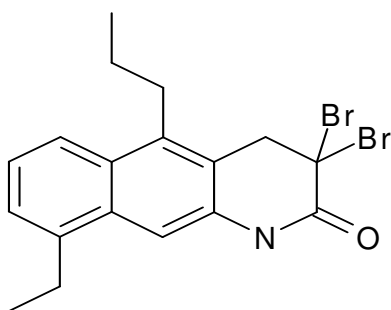
1. For each of the following structures determine the degree of unsaturation and use this information to determine the complete chemical formula. Please note that the saturation formula is given in the next question.



testosterone

deg. unsat = \_\_\_\_\_

formula =

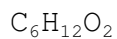
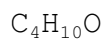


deg. unsat = \_\_\_\_\_


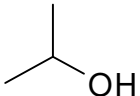
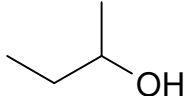
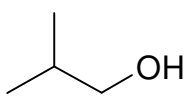
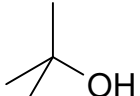
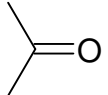
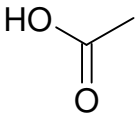
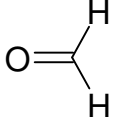

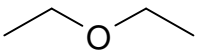
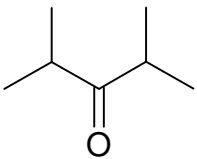
formula =

2.  $H = [2C + 2] - 2(\text{deg. unsat}) - X + N$

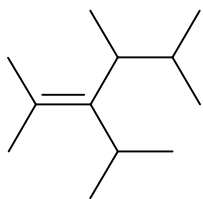
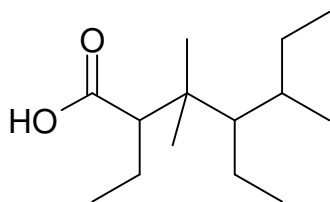
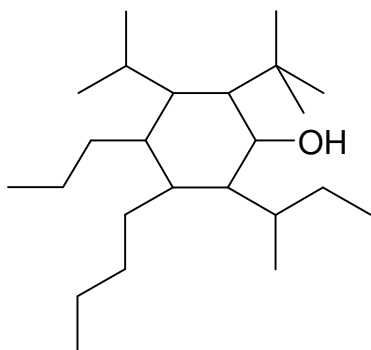
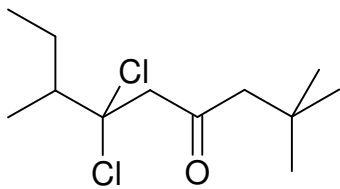
Use the above saturation formula to determine the degree of unsaturation and hence the possible combinations of functional groups (and rings) that would make possible each formula. (1 mark per correct response, some marks may be deducted for extra incorrect answers)



3. Provide common names and I.U.P.A.C. names for each of the following. If more than one common name exists, include both. Be sure to follow the rules when writing I.U.P.A.C. names. One mark per name

	Common Names	I.U.P.A.C.
		
		
		
		
		
		
		
		
		
		
		

4. Write complete I.U.P.A.C. names for each of the following:



5. Provide all structural isomer for this formula. Present your work in an organized fashion. Marks will be deduced for disorder. Also, marks will be deduced for duplicate (or triplicate etc. structures).

