1) Draw a valid lewis structure for the following:

NF3 CCL4 SF4

2) Which have a higher boiling point and why?

A) CH3F vs CH3OH

B) CaCl2 vs PCl3

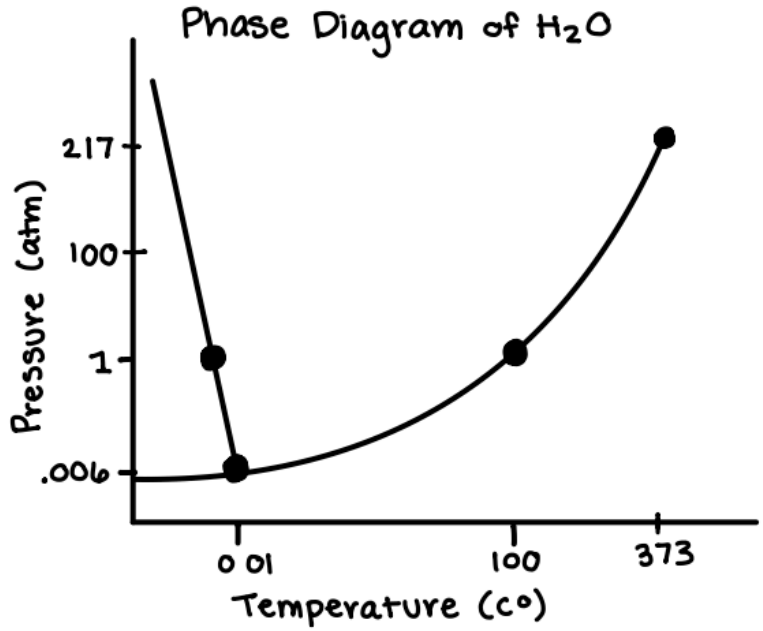
3) Which liquid has the highest vapor pressure?

A) $C_5H_{10}O$

B) $C_5H_{10}OH$

C) C_6H_{14}

4) What is viscosity? How does it relate in IMF and temperature?



Label:
- gas phase
- liquid phase
- solid phase
- triple point
- critical point
- normal B.P
- normal M.P

5) 100 grams of H2O is cooled from 373C to 100C at a constant pressure of 100 atm. What phase change occurs?

6)A 25.0 g sample of ice at 0.0°C is heated until it becomes liquid water at 45.0°C. Calculate the total amount of heat (in kJ) required for this process.

GIVEN: ΔH_{fus}=6.02kJ/mol
C_{water}=4.18J/g°C
Molar mass of H_2O = 18.02 g/mol

7)A 30.0 g sample of steam at 100.0°C is cooled until it becomes liquid water at 65.0°C. Calculate the total heat released (in kJ) during this process.

GIVEN: ΔHvap=40.7kJ/mol
Cwater=4.18J/g°C
Molar mass H_2O = 18.02 g/mol