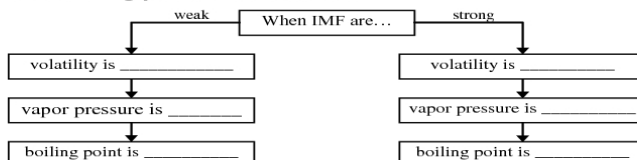


Name _____ Period _____ Date _____

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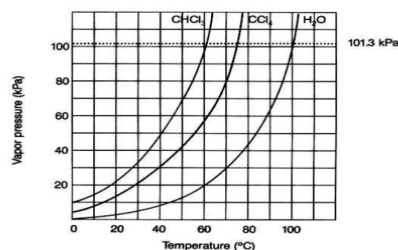
PART A – INTERMOLECULAR FORCES

1. Fill in the diagram (with high or low) to show how intermolecular forces influence the **volatility**, **vapor pressure**, and **boiling point** of a substance.

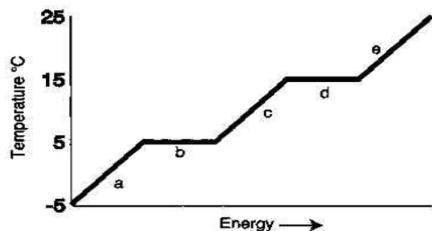


PART B – VAPOR PRESSURE GRAPHS Use the graph below to answer the following questions.

2. What is the vapor pressure of CHCl_3 at 50°C ? _____
3. What is the boiling point of H_2O when the external pressure is 30 kPa? _____
4. What is the normal boiling point of CCl_4 ? _____
5. Which substance has the weakest IMF? _____



PART C – HEATING CURVES. Use the heating curve below to answer the following questions.



6. What is the melting point of the substance? _____
7. What is the boiling point of the substance? _____
8. Which letter represents heating of the solid? _____
9. Which letter represents heating of the vapor? _____
10. Which letter represents melting of the solid? _____
11. Which letter represents boiling of the liquid? _____

PART D – PHASE DIAGRAMS. Use the phase diagram for water below to answer the following questions.

12. What is the state of water at 2 atm and 50° _____
13. What phase change will occur if the temperature is lowered from 80°C to -5°C at 1 atm? _____
14. You have ice at -10°C and 1 atm. What could you do in order cause the ice to sublime? _____

