

WKS – Chem Honors
Vapor Pressure and Boiling Point

Name _____

Date _____ Period _____

1) Using the diagram at right, estimate the approximate equilibrium vapor pressure of each of the following at the specified temperature.

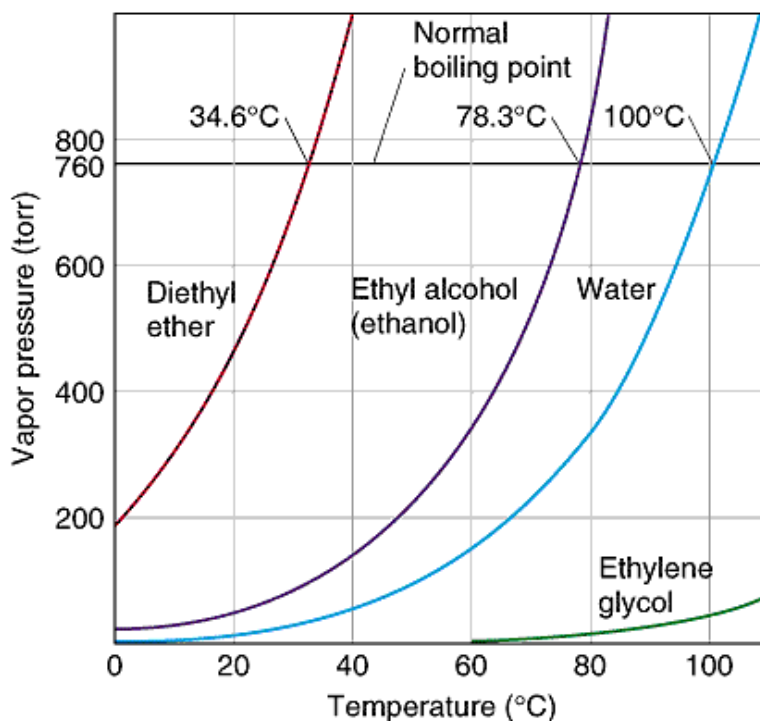
a) water at 40°C:

b) water at 80°C:

c) diethyl ether at 20°C:

d) ethanol at 60°C:

2) Explain why the vapor pressure of a liquid increases with increasing temperature.



3) Explain how the attractive forces between the particles in a liquid and the equilibrium vapor pressure of that liquid are related.

4) Explain the relationship between atmospheric pressure and the actual boiling point of a liquid.

5) Use the diagram in #1 to estimate the boiling point of each of the following at the specified pressure:

a) Water at 600 mmHg (in Denver)

b) Water at 225 mm Hg (top of Mt. Everest)

c) Ethanol at 200 mm Hg

d) Diethyl ether at 300 mm Hg