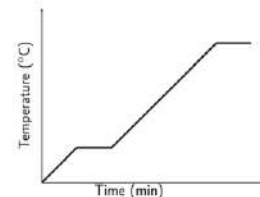
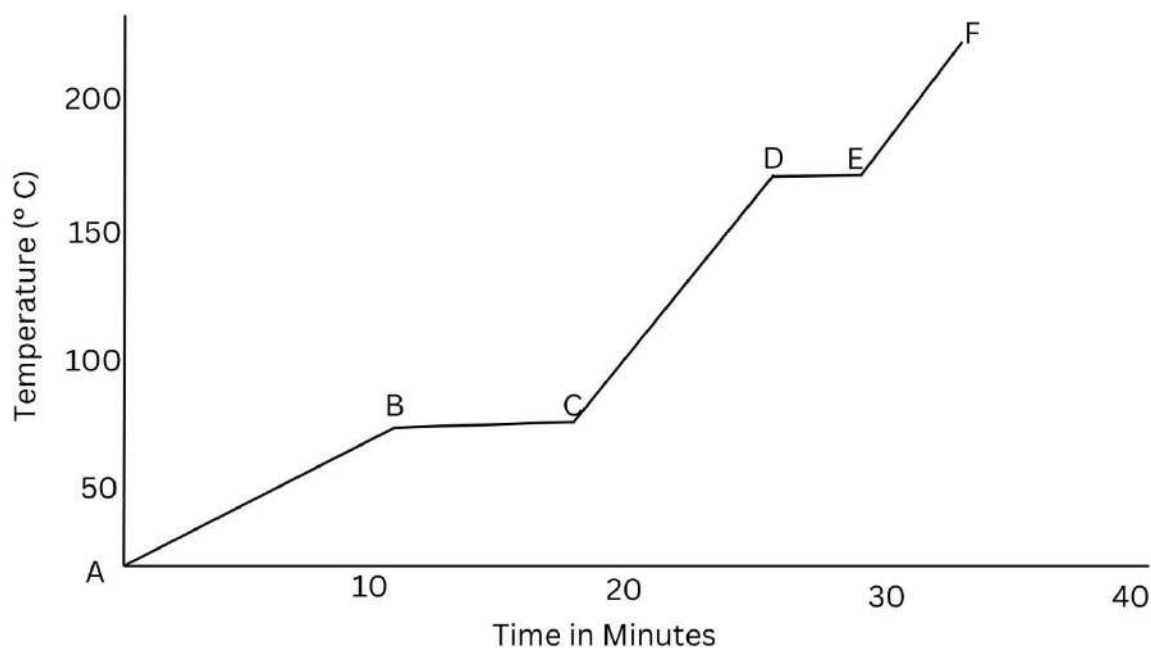


Name _____ Date _____



HEATING AND COOLING CURVES QUIZ

1. The graph below shows the heating curve of a substance P starting from 0°C (point A). Use it to answer the following questions:



- a. Determine the melting and boiling point of substance P

- b. How long did substance P take to melt completely?

- c. In what part of the curve were the molecules of substance P farthest apart?

d. In what part of the curve were the molecules of substance P having definite volume but no definite shape?

e. In what part of the curve did the molecules of substance P possess the highest and the lowest kinetic energy respectively?

f. In what part of the curve was substance P in a mixed liquid/gas phase?

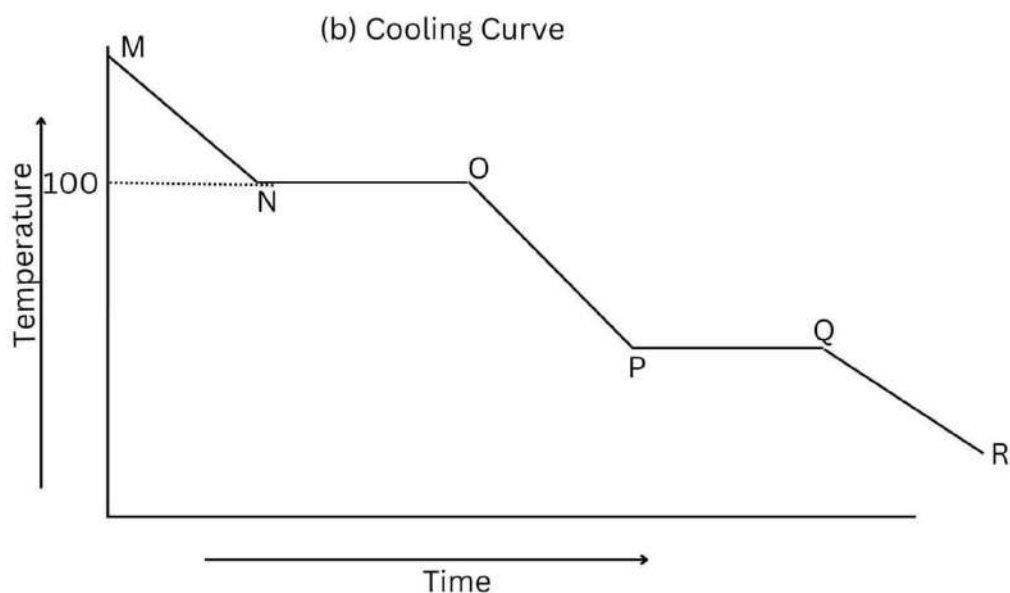
g. What is the physical states of substance P at regions marked CD and DE

h. Is substance P a pure or impure substance? Justify your answer.

i. In terms of kinetic energies and particle movement, explain what happens in regions marked AB and BC.

j. It took longer time to melt substance P than to evaporate it (assuming a constant source of heat was used). Explain.

2. The graph below represents the cooling curve of water. Use it to answer the questions below:



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- a. Which regions represent the following changes of state?
- Condensation point: _____
 - Freezing point: _____
- b. Why does the temperature remain constant at regions NO and PQ?
- NO

- PQ

- c. At what region do the molecules of water attain definite shape and define volume?
