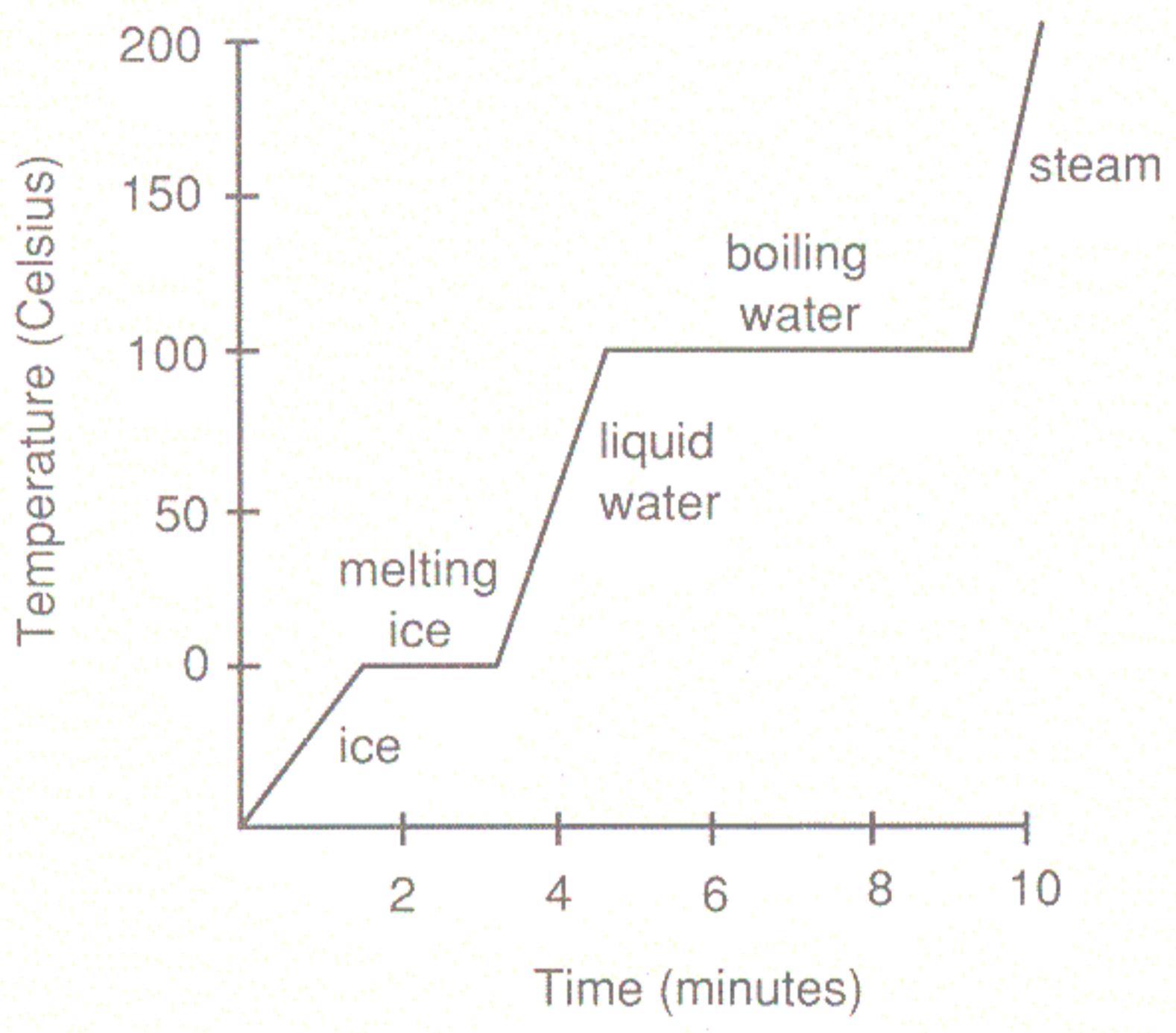




# Science sample questions

Use the graph below to answer the question.

The graph below shows the relationship of temperature and time as constant heat is applied to an ice cube.



Which statement is consistent with the graph?

- A. The temperature of melting ice remains constant until all of the ice is melted.
- B. The rate of water boiling equals the rate of ice melting.
- C. The same amount of heat is required to melt ice as to boil water.
- D. More heat is required to melt ice than is required to boil water.

Read the passage below and answer the question.

A student is investigating the effect of light on the rate of growth of a species of bacterium. The student plans to prepare 20 petri dish cultures of the bacterium.

Which procedure would yield the greatest amount of information on the effect of light on the growth of the bacterium?

- A. Put four cultures in the dark, eight under a light source of known intensity and eight in the normal light of the laboratory.
- B. Put four cultures under a light source of known intensity, eight in the dark and eight in the normal light of the laboratory.
- C. Put ten cultures in the dark and ten under a light source of known intensity.
- D. Put four cultures in the dark and four under each of four different light sources of known intensities.

Use the table below to answer the question.

Measurements of the pressure and volume of a gas at a constant temperature gave the following results.

Pressure (atmospheres)	Volume (liters)
1.0	1000
2.5	400
12.5	80
20.0	50
200.0	5

Which is most likely the volume of the gas in liters when the pressure is 25 atmospheres?

- A. 25
- B. 40
- C. 62
- D. 160