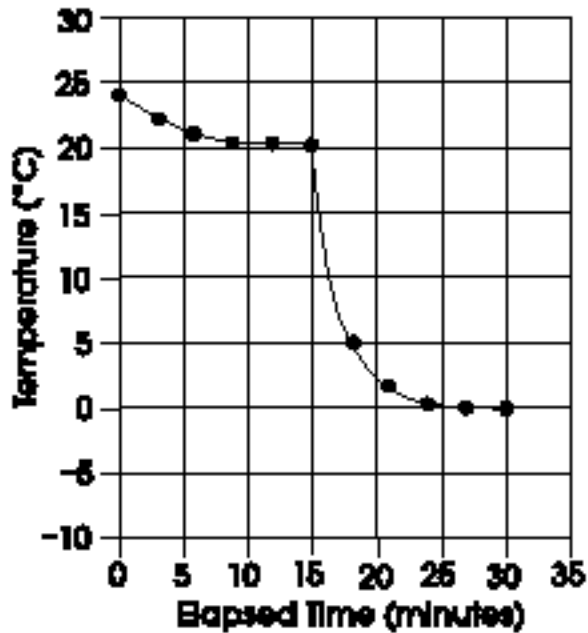


Question 6
Benchmark A
9th Practice Test

6. In a proposed experiment using twice as much ice and half as much water as in Experiment 1, a student predicts the values shown in the graph below.

Predicted Values for Proposed Experiment

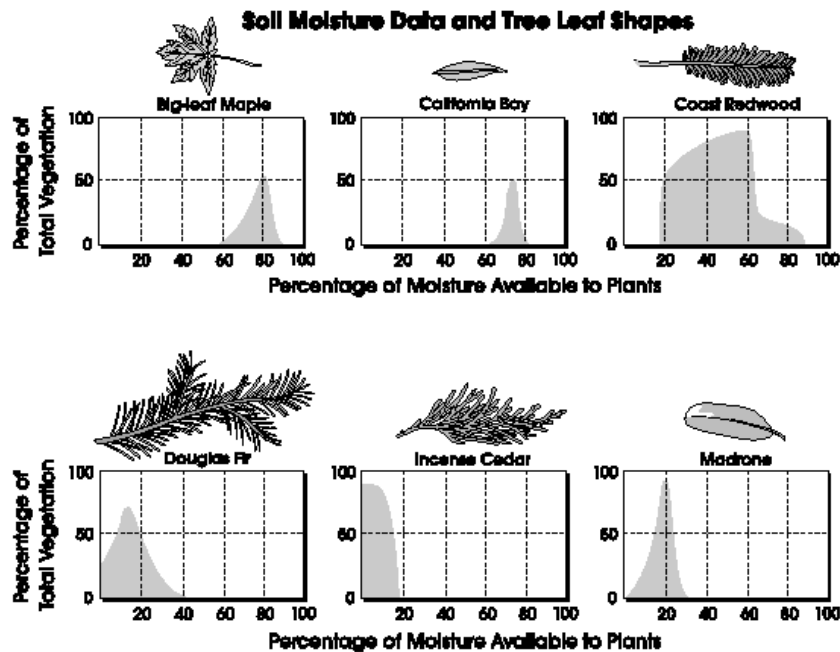


Compare the shapes of the graphed lines from Experiment 1 and the proposed experiment and explain why the predicted values are probable. Respond in the space provided in your **Answer Document**.
(2 points)

Question 8
Benchmark A
9th Practice Test

Plant Distribution

The distribution of plant species depends on many factors, including climate, topography, soil conditions and biological interactions. Data on moisture availability were collected along the coast of Northern California. In this area, each plant community has a dominant tree. The graphs below illustrate a dominant tree's percentage of the total vegetation compared to the percentage of soil moisture available. Each tree species studied has a distinct preference for a certain kind of habitat.



An ecologist observes that an area in California has experienced an increase in average soil moisture content. The area was once dominated by incense cedar but is now home to a greater variety of trees. Which types of trees would the ecologist most likely observe in this area if the soil moisture content has risen to 30%?

- A. madrone and California bay
- B. Douglas fir and madrone
- C. incense cedar and big-leaf maple
- D. coast redwood and big-leaf maple

Question 11
Benchmark A
9th Practice Test

11. A survey of a small coastal valley in California finds only Douglas fir, madrone, and coast redwood. The soil moisture availability in this valley is most likely to be
- A. 0 – 20%.
 - B. 20 – 40%.
 - C. 40 – 80%.
 - D. 60 – 80%.

Question 42
Benchmark A
Spring 2005

42. An agricultural scientist wants to determine the effect of fertilizers on corn plant growth. She selects a fertilizer to treat a soil plot where corn seeds have just sprouted. Describe an appropriate control she could use to determine whether the fertilizer affects growth of the corn plants. Explain why it is important to include this control. Respond in the space provided in your **Answer Document**. (2 points)

Question 44
Benchmark A
Spring 2005

The water level in a graduated cylinder rises from 10 cm³ to 35 cm³ when a solid lead ball is added. What is the approximate volume of the lead ball?

- A. 3.5 cm³
- B. 25 cm³
- C. 35 cm³
- D. 45 cm³