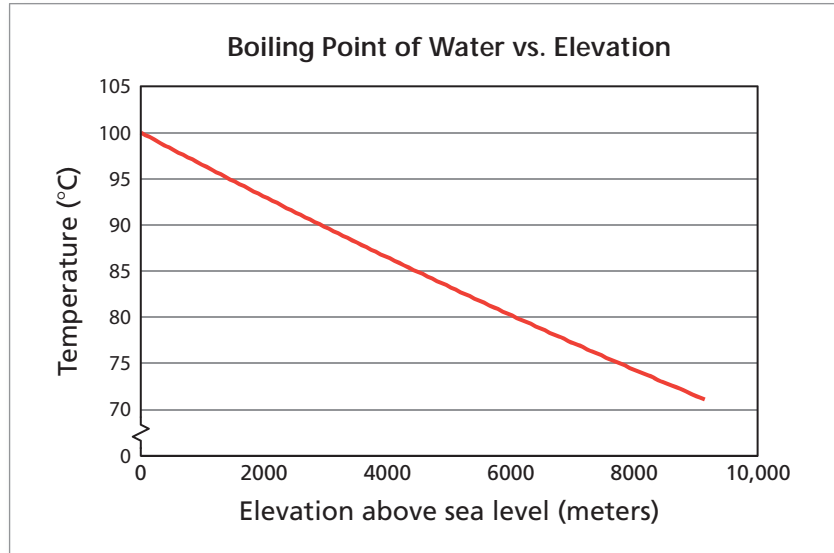


3.3–3.4 Quiz

Boiling Point In Exercises 1–8, use the graph.

1. Suppose you live near sea level (0 meters) and heat a pan of water until it boils.
 - a. At what temperature will you observe the water boiling?
 - b. What might you infer about the boiling point of all water?
 - c. Draw a set diagram that represents the inference from part (b).
2. The elevation of La Paz, Bolivia is about 3600 meters above sea level.
 - a. At what temperature will a resident of La Paz observe water boiling?
 - b. What might the resident infer about the boiling point of all water?
 - c. Draw a set diagram that represents the inference from part (b).



3. Write a syllogism that involves the boiling point of water at sea level (0 meters).
4. Write a syllogism that involves the boiling point of water in La Paz (about 3600 meters above sea level).
5. Write a syllogism that involves the relationship between elevation and boiling point.
6. Is the logic in the statement valid? Draw a set diagram to analyze the argument.

If the elevation decreases, the boiling point increases. The boiling point increased, so the elevation must have decreased.



7. As elevation increases, atmospheric pressure decreases. Write a syllogism that involves the relationship between atmospheric pressure and elevation.
8. Suppose you perform the following experiment. You place water in a pressure cooker at an elevation of 5000 meters above sea level and adjust the pressure in the cooker to 1 atmosphere, which is the pressure at sea level (0 meters). When you heat the water, it boils at 100°C. What can you conclude?