1. Caleb wants to know how salt affects the boiling point of water. What is the **best** way for Caleb to collect data to answer this question?

   A) Add 1 gram of salt to 1 liter of water and 10 grams of salt to a second liter; time how long it takes for each to boil.

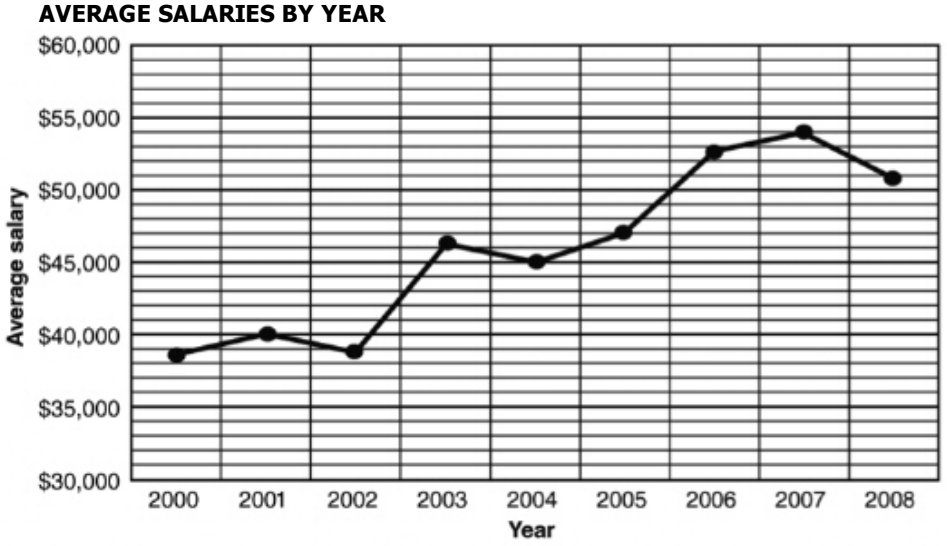
   B) Add 1 gram of salt to 1 liter of water and time how long it takes for the water to boil.

   C) Add 1 gram of salt to 1 liter of water and leave a second liter free of salt; time how long it takes for each to boil.

   D) Bring 1 liter of water to a boil, then add 1 gram of salt and observe any changes.

Correct answer(s): C

2. The following line graph tracks the average salaries of employees at a company.



Which of the following observations about the information in the graph is **most accurate**?

A) The average salary increased every year between 2000 and 2008.

B) The average salary mostly stayed the same between 2000 and 2008.

C) The average salary mostly increased between 2000 and 2008.

D) The average salary mostly decreased between 2000 and 2008.

Correct answer(s): C

3. Matthew records the temperature outside for one day. From 10:00 a.m. to 12:00 p.m., the temperature rises 4°C. From 12:00 p.m. to 2:00 p.m., it rises another 3°C. From 2:00 p.m. to 4:00 p.m., it drops 2°C. Which of the following predictions about how the temperature will change between 4:00 p.m. and 6:00 p.m. is **most reasonable**?

   A) The temperature will drop 4°C.

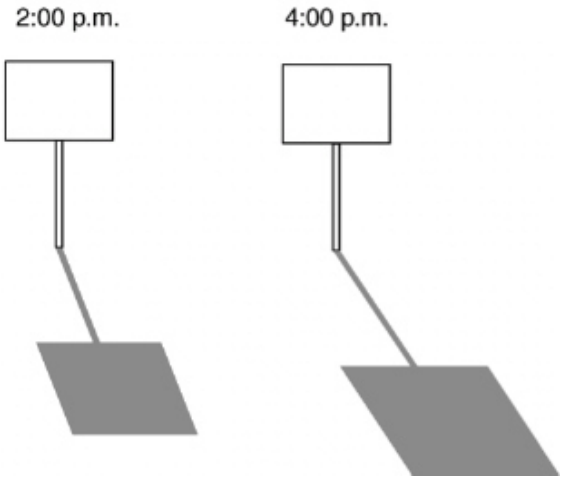
   B) The temperature will drop 14°C.

   C) The temperature will rise 3°C.

   D) The temperature will stay the same.

Correct answer(s): A

4. The following diagram shows the shadows cast by a sign at two different times during the day.



Which of the following predictions states what the shadow **most likely** will look like at 6:00 p.m.?

- A) The shadow will be shorter than the 2:00 p.m. shadow.
- B) The shadow will be the same length as the 4:00 p.m. shadow.
- C) The shadow will be longer than the 4:00 p.m. shadow.
- D) The shadow will be the same length as the 2:00 p.m. shadow.

Correct answer(s): C

5. As part of a neighborhood cleanup, Susan collects trash in the park. She then sorts through the trash and categorizes it into different types. She finds most of the items were made from paper, followed by plastic, and then metal. What conclusion could Susan draw from her observations?

- A) People do not realize that paper is easily recycled.
- B) Children are more likely to litter than adults.
- C) People are more likely to litter with paper than other types of trash.
- D) Plastic is more harmful to the environment than other types of trash.

Correct answer(s): C

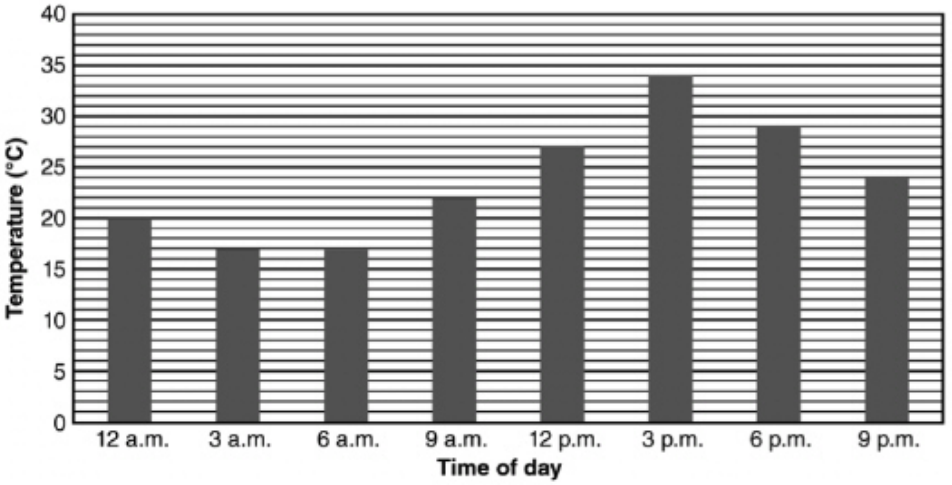
6. Marissa wants to know which of four routes that she could possibly take on her walk to school is the fastest. Which of the following is the **best** way for Marissa to gather information to answer this question?

- A) She should look on a map to see which route looks shortest.
- B) She should have four friends each take one route and observe who arrives at school first.
- C) She should take a survey of her friends to find out what they think is the fastest route.
- D) She should walk each route herself at a normal pace and time how long each takes.

Correct answer(s): D

7. Latasha recorded the temperatures every three hours throughout the day and constructed the graph below using her results.

TEMPERATURES FOR JUNE 12



Based on the information in the graph, what would be the **best** prediction about the temperature at 10:30 p.m.?

- A) 29°C
- B) 20°C
- C) 24°C
- D) 27°C

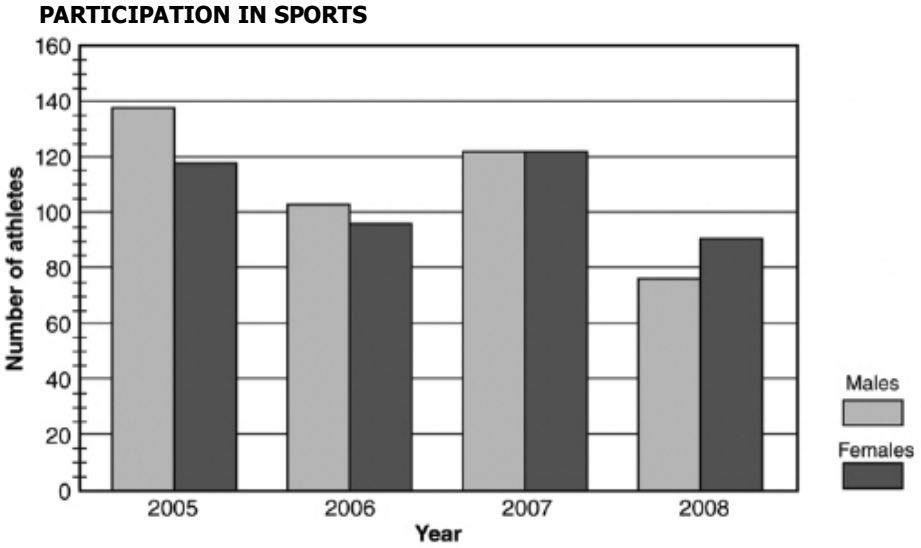
Correct answer(s): C

8. Sean is planning an investigation to test which materials conduct electricity. To do this, he will set up a simple circuit using a battery, wire, and a light bulb. Then, he will complete the circuit with objects made from different materials and he will observe whether the bulb lights up. In this experiment, what is the outcome variable (dependent variable)?

- A) whether the bulb lights
- B) the strength of the battery used
- C) how bright the bulb glows
- D) the object used to complete the circuit

Correct answer(s): A

9. The following graph shows the number of male and female athletes that participated in sports at Adams College.



What conclusion can be made from studying the graph?

- A) The percentage of the total athletes who were women grew between 2005 and 2008.

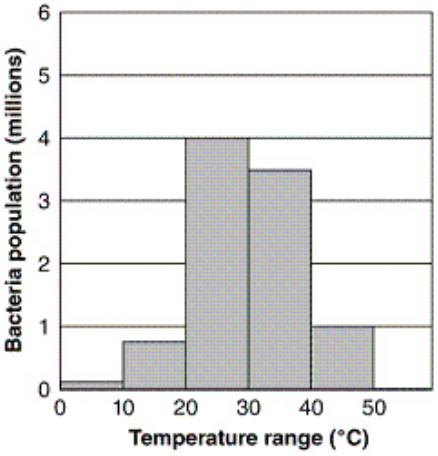
B) The number of women playing sports was less than the number of men playing sports between 2005 and 2008.

C) The number of women playing sports steadily increased between 2005 and 2008.

D) The number of women playing sports at Adams College will continue to increase after 2008.

Correct answer(s): A

10. The following bar graph shows the population of bacteria under different temperature ranges.



What can be concluded about the bacteria from reading this graph?

A) They thrive at exactly 30°C.

B) They cannot tolerate temperatures above 50°C.

C) They prefer warmer temperatures to cooler temperatures.

D) They prefer temperatures between 20°C and 30°C.

Correct answer(s): D

Done Show/Hide Answers