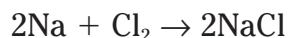


Use the chemical equation below to answer number 32.



32 Which of the following lists **all** the products in this equation?

- A 2Na
- B  $\text{Cl}_2$
- C 2NaCl
- D  $2\text{Na} + \text{Cl}_2$

33 A species of green lizards lives in a forest at the edge of a sandy desert. When the lizards go onto the sand, their color makes them easy prey for predators. After many generations, brown lizards from this species can be found living safely in the desert. What happened?

- A Lizards that moved into the desert grew brown scales.
- B Some lizards decided to grow brown scales and were able to live in the desert.
- C Small changes in scale color were passed on to offspring until some lizards were brown and could live in the desert.
- D Lizards saw other brownish animals were able to survive in the desert and learned to use this color for their scales.

34 A scientist is interested in learning what causes some stars to explode at the end of their life cycle. Which of the following is the **best** way to try to answer this question?

- A Use a telescope to observe the night sky until an exploding star is seen.
- B Use a space shuttle to travel to a nearby star and cause it to explode.
- C Use a satellite to travel to a nearby star and observe it as it explodes.
- D Use a computer model to show how different factors could affect an exploding star.

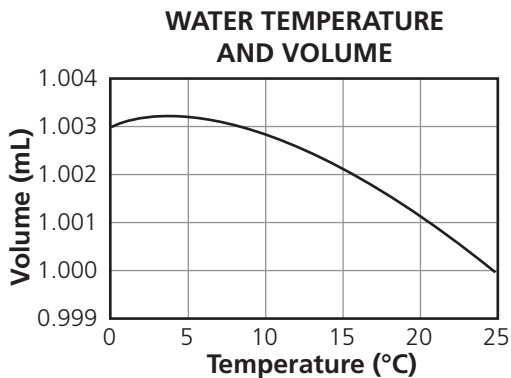
35 Which water source would contain the highest concentration of salts dissolved in water?

- A estuary
- B creek
- C pond
- D lake

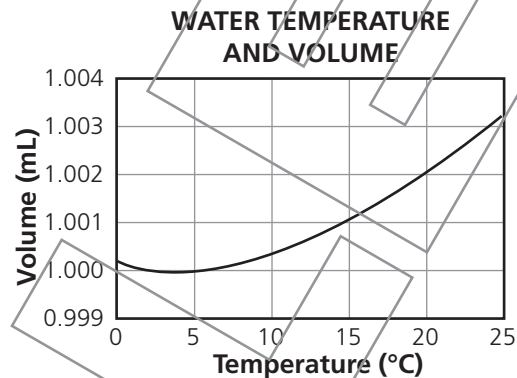
36

Like most liquids, water usually expands when heated. Water, however, has the unusual property of contracting between the temperatures of  $0^{\circ}\text{C}$  and  $4^{\circ}\text{C}$ . Which graph shows these behaviors?

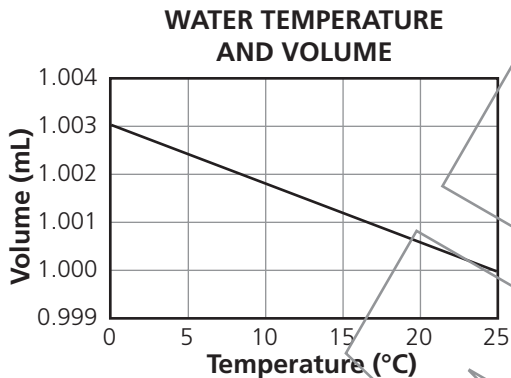
A



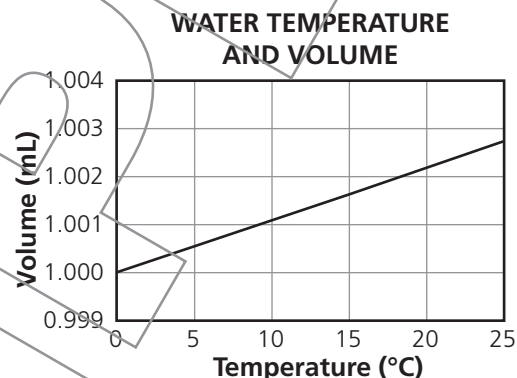
B



C



D



37

A scientist is designing a rocket to carry a space probe to the moons of Jupiter. How will Newton's laws of motion be helpful to the scientist?

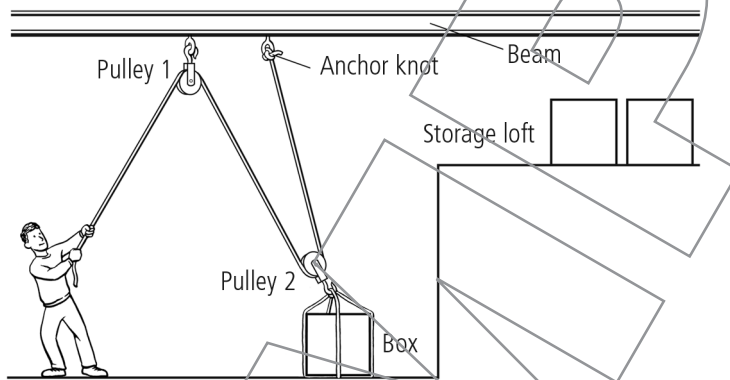
- A They will help him or her figure out how gravity pulls on the rocket as it travels.
- B They will let him or her plan how much force the rocket engines must generate.
- C They will help him or her predict the temperature and weather of Jupiter's moons.
- D They will let him or her know what kind of computer should go in the space probe.

Use the table below to answer question 38.

	Organism M	Organism N	Organism O	Organism P
Food Source	Insects, nuts, berries, worms	Makes its own food	Remains of dead organisms	Grasses, seeds, leaves

- 38 Which pair of organisms could have a predator–prey relationship?
- A Organism N is a predator, and organism M is its prey.
  - B Organism P is a predator, and organism O is its prey.
  - C Organism M is a predator, and organism P is its prey.
  - D Organism N is a predator, and organism O is its prey.

Use the figure below to answer question 39.



- 39 The two-pulley system shown above is designed to help lift heavy boxes into a storage loft. One end of the rope is free and can be pulled to lift the box. The other end is tied to a ceiling beam by an anchor knot. Which of the following **best** explains the design flaw in this system?
- A There are only two pulleys, so the force needed to lift the box is not reduced.
  - B The rope in the pulley system is not long enough, so it is not possible to lift the box all the way up to the storage loft.
  - C Pulley 2 is on the box rather than the ceiling, so the force needed to lift the box is not reduced.
  - D The anchor knot is too close to pulley 1, so the box will move away from the storage loft as it is raised.