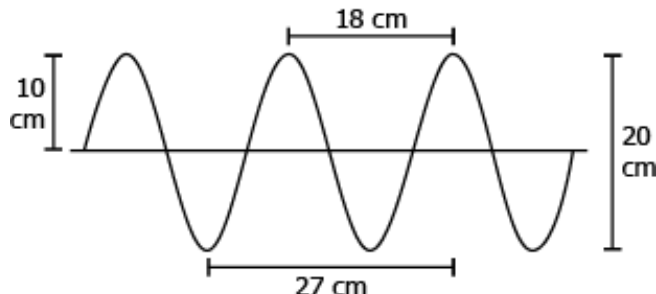


1. A student makes a model of a wave, as shown.



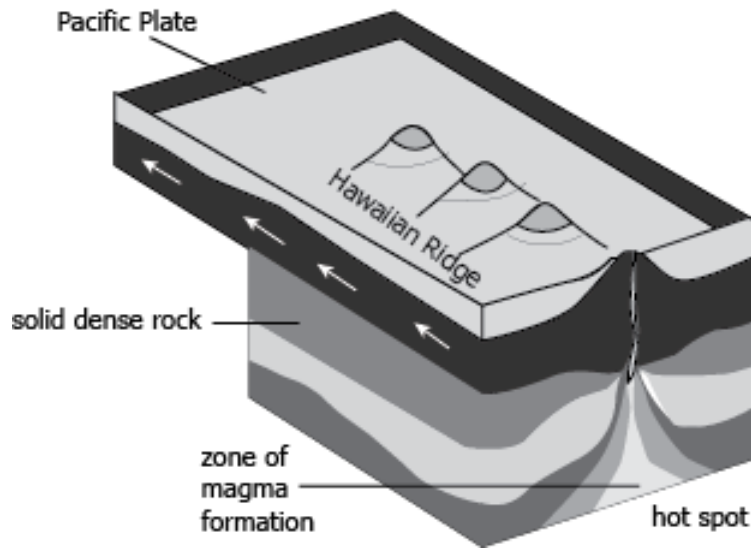
What is the amplitude of the wave?

- A 10 cm
 - B 18 cm
 - C 20 cm
 - D 27 cm
2. In the early 1900s, scientists discovered that certain properties of light were changed depending on the distance between Earth and the object being observed. In 1929, Edwin Hubble compared this phenomenon to the relative distances between a certain set of stars. Hubble found that when the two sets of data were graphed against one another, each star appeared to be farther from one another than what the relative distance indicated. With this information, Hubble concluded the universe is expanding.

What phenomenon was discovered by early astronomers and used by Hubble to confirm that the universe is expanding?

- A The light emitted by the galaxies becomes brighter as they move away from one another.
- B The light emitted by the galaxies becomes whiter as they move away from one another.
- C The wavelength of the light emitted by the galaxies shifts to the blue region of the spectrum as the galaxies move away from one another.
- D The wavelength of the light emitted by the galaxies shifts to the red region of the spectrum as the galaxies move away from one another.

3. The diagram shows a belt of volcanoes on the Pacific Plate.



Which statement is true about the volcanoes on the Pacific Plate?

- A** As the Pacific Plate moves, the pressure beneath the individual volcanoes decreases, forcing magma toward the surface and leading to the formation of new volcanoes.
- B** As the Pacific Plate moves, the volcanoes and the hot spot move together, forming new, larger volcanoes.
- C** As the Pacific Plate moves, cracks appear in the oceanic crust that fill with water, restricting the formation of new volcanoes.
- D** As the Pacific Plate moves, the volcanoes move away from the hot spot, forming new volcanoes above the hot spot.

4. A group of geologists found that all fossils older than 370 million years contained only sea creatures. In 1998, geologists found a 370 million-year-old fossilized fin that had eight digits resembling the digits of a human hand.

What can be concluded from this fossil information?

- A** It shows the evolution of a sea creature to a land animal.
- B** It shows the evolution of an aquatic animal from a mammal.
- C** It shows the evidence that all sea creatures evolved 370 million years ago.
- D** It shows the evidence that the earlier oceans had a variety of aquatic animals.