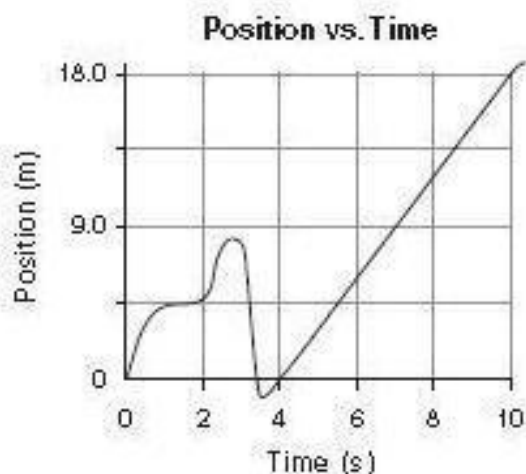


1 Which characteristic of motion could change without changing the velocity of an object?

- A the speed
- B the position
- C the direction
- D the acceleration

CSZ004

2 The graph below shows how the position of an object changes over time.

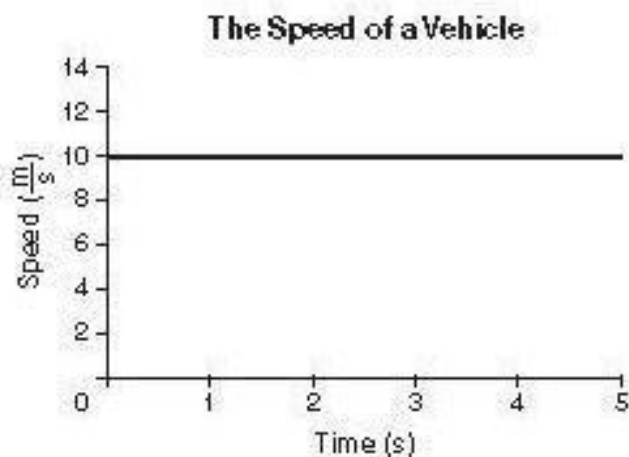


What is the speed of the object during the time interval from 4 seconds to 10 seconds?

- A $2 \frac{\text{m}}{\text{s}}$
- B $3 \frac{\text{m}}{\text{s}}$
- C $8 \frac{\text{m}}{\text{s}}$
- D $16 \frac{\text{m}}{\text{s}}$

CSZ012

3 The graph below shows the speed of a vehicle over time.



How far did the vehicle travel during the first two seconds?

- A 0.2 m
- B 5 m
- C 10 m
- D 20 m

CSZ016

- 4 The densities of four different woods are shown below.

Wood Sample Densities

Type of Wood	Density ($\frac{\text{g}}{\text{cm}^3}$)
African Teakwood	0.98
Balsa	0.14
Cedar	0.55
Ironwood	1.23

Which wood will sink when placed in a fluid with a density of $1.14 \frac{\text{g}}{\text{cm}^3}$?

- A African teakwood
- B balsa
- C cedar
- D ironwood

CSZ019

- 5 Which of the following best describes an atom?

- A protons and electrons grouped together in a random pattern
- B protons and electrons grouped together in an alternating pattern
- C a core of protons and neutrons surrounded by electrons
- D a core of electrons and neutrons surrounded by protons

CSZ028

- 6 Which of the following is found farthest from the center of an atom?

- A nucleus
- B proton
- C neutron
- D electron

CSZ024

- 7 When magnesium (Mg) metal is burned in the presence of oxygen (O_2), magnesium oxide (MgO) is produced. The properties of magnesium oxide are different than the individual properties of magnesium and oxygen because magnesium oxide is

- A a solution.
- B a mixture.
- C a compound.
- D an element.

CSZ025

- 8 Within a substance, atoms that collide frequently and move independently of one another are most likely in a

- A liquid.
- B solid.
- C gas.
- D crystal.

CSZ027

Answers:

1. B

2. B

3. D

4. D

5. C

6. D

7. C

8. C