NAME : _____

CLASS : _____

DATE : _____

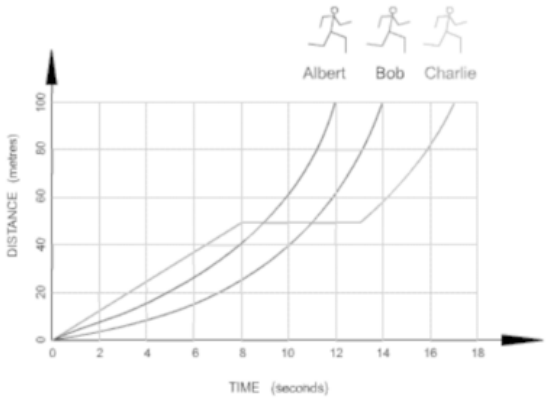
Motion Graphs

17 Questions

1. Acceleration occurs when an object changes its speed or _____.

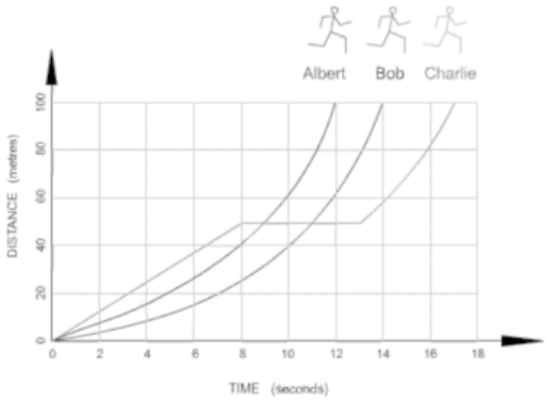
☐ a) direction
☐ b) force
☐ c) inertia
☐ d) mass

2. Which runner stopped for a rest?



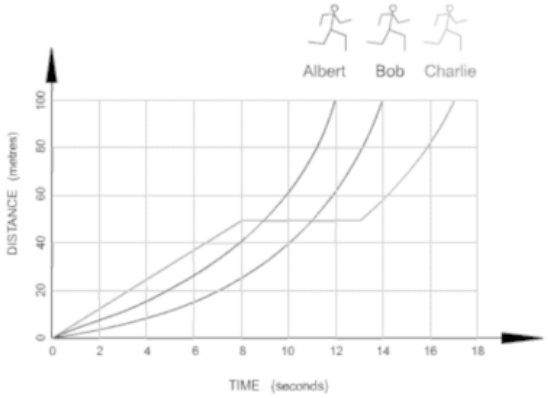
☐ a) Albert
☐ b) Bob
☐ c) Charlie

3. Which runner won the race?



☐ a) Albert
☐ b) Bob
☐ c) Charlie

4. How long did one of the runner's rest?



- ☐ a) 8 seconds
- ☐ b) 13 seconds
- ☐ c) 5 seconds
- ☐ d) 50 seconds

5. Velocity is

- ☐ a) speed and acceleration
- ☐ b) constant speed
- ☐ c) a frame of reference
- ☐ d) speed in a given direction

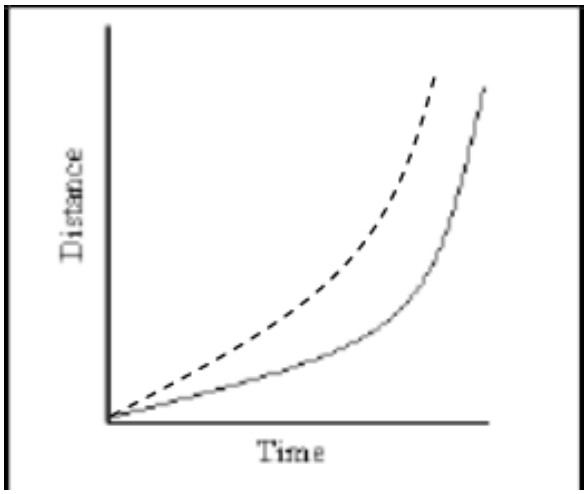
6. Acceleration is

- ☐ a) increasing speed
- ☐ b) decreasing speed
- ☐ c) changing direction
- ☐ d) all of the above

7. A car driving at 50 miles per hour drives for 2 hours. What distance did it cover?

- ☐ a) 50 miles
- ☐ b) 25 miles
- ☐ c) 100 miles
- ☐ d) 75 miles

8. What does this graph represent?

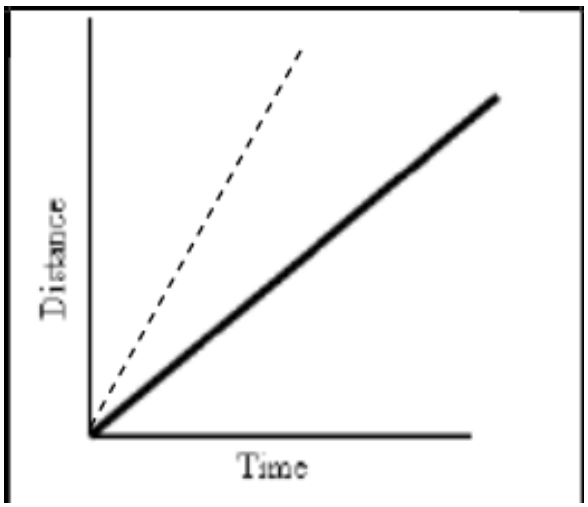


☐ a) Constant speed

☐ b) Acceleration

☐ c) Not moving

9. What does this graph represent?

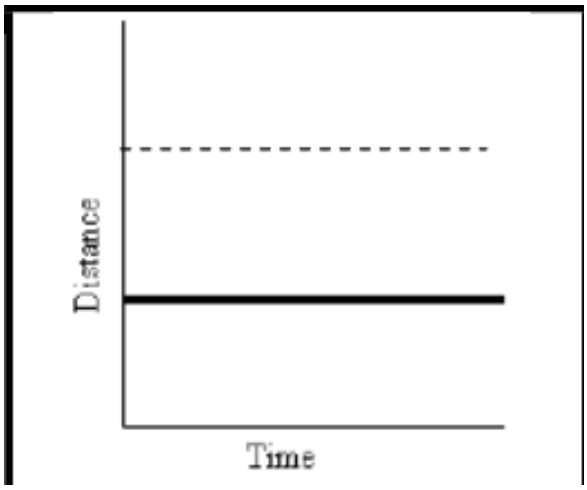


☐ a) Constant Speed

☐ b) Acceleration

☐ c) Not moving

10. What does this graph represent?

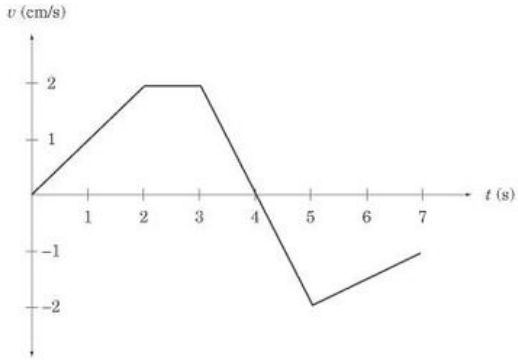


☐ a) Constant speed

☐ b) Acceleration

☐ c) Not moving

11. What is happening between 2 and 3 seconds?



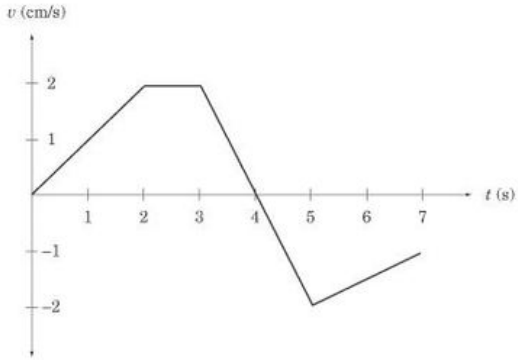
☐ a) The object is not moving.

☐ b) The object is not accelerating.

☐ c) The object is slowing down.

☐ d) The object is speeding up.

12. What is happening between 3 seconds and 4 seconds?



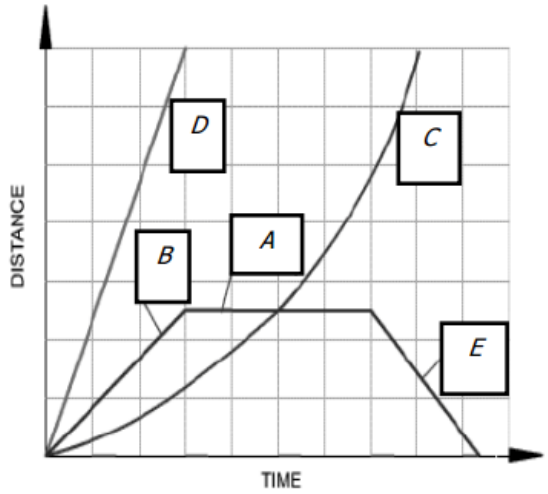
☐ a) The object is moving in a negative direction.

☐ b) The object is returning to its starting position.

☐ c) The object is slowing to a stop.

☐ d) The object is changing direction.

13. What is happening at E?



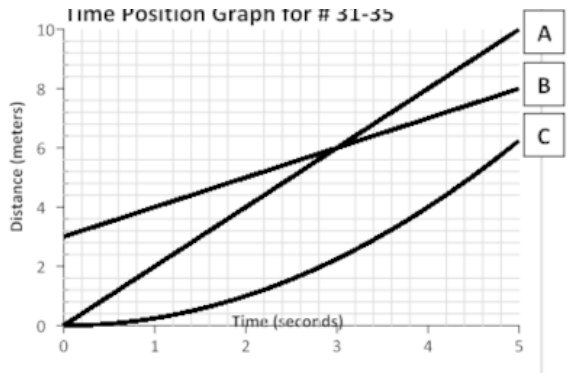
☐ a) Stationary

☐ b) Accelerating

☐ c) Fast steady speed; moving away from the starting position

☐ d) Steady speed; returning to start position

14. Which runner had a head start?



☐ a) A

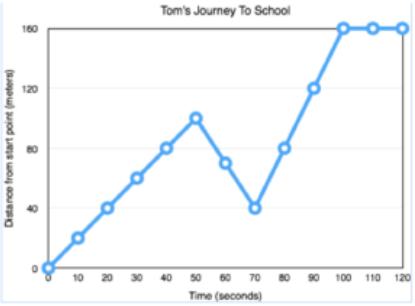
☐ b) B

☐ c) C

15.

JOURNEY TO THE BUS STOP:

Below, the graph shows Tom's journey is split into four sections.

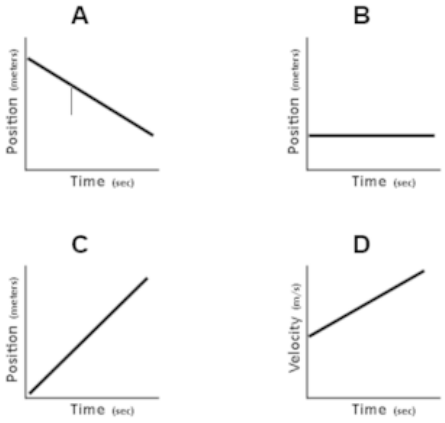


Every morning, Tom walks along a straight road from his home to the bus stop. Below, is a graph representing Tom's trip to school.
- What is the distance covered through the second segment, which is between 50 seconds, and 70 seconds?

- [ ] a) 40 meters
- [ ] b) 60 meters
- [ ] c) 80 meters
- [ ] d) 20 meters

16.

Which graph shows the object standing still?



- [ ] a) A
- [ ] b) B
- [ ] c) C
- [ ] d) D

17. What is this line of this graph showing?

☐ a) moving away from starting point at a constant speed

☐ b) moving back towards the starting point at a constant speed

☐ c) acceleration (getting faster)

☐ d) deceleration (getting slower)

Answer Key

1. a
2. c
3. a
4. c
5. d
6. d
7. c
8. b
9. a
10. c
11. a
12. b
13. d
14. b
15. b
16. b
17. b