

# Kinematics (x-t)

⚠ This is a preview of the published version of the quiz

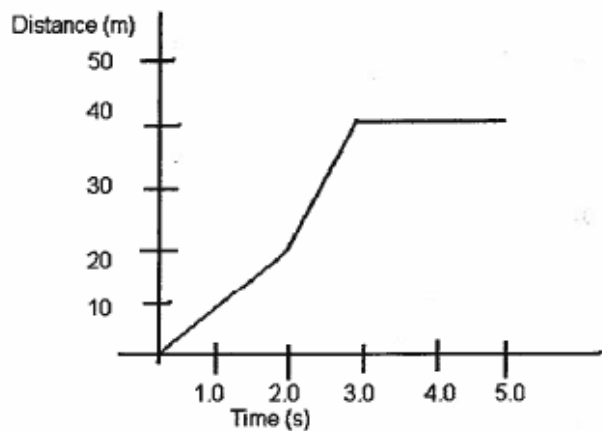
Started: Oct 16 at 11:41am

## Quiz Instructions

### Question 1

1 pts

According to the graph, what is the rider's average speed from  $t = 0\text{s}$  to  $t = 2\text{s}$ ?

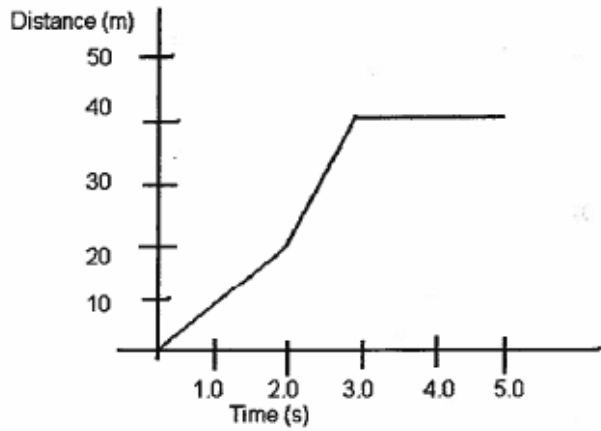


- 40 m/s
- 20 m/s
- 0 m/s
- 10 m/s

### Question 2

1 pts

According to the graph, what time interval is the rider moving at a constant velocity?

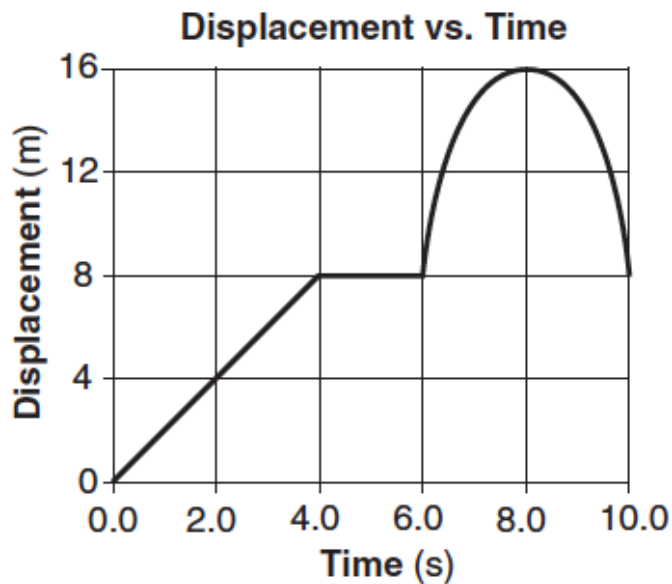


- t = 1s to t = 3s
- t = 0s to t = 5s
- t = 0s to t = 2s
- t = 0s to t = 3s

### Question 3

1 pts

The graph below represents the displacement of an object moving in a straight line as a function of time.

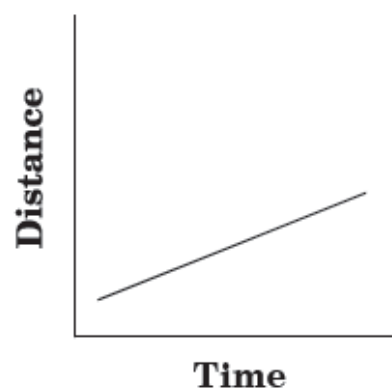


What was the total **displacement** traveled by the object during the 10 second time interval?

- 8 m
- 0 m
- 24 m
- 16 m

**Question 4****1 pts**

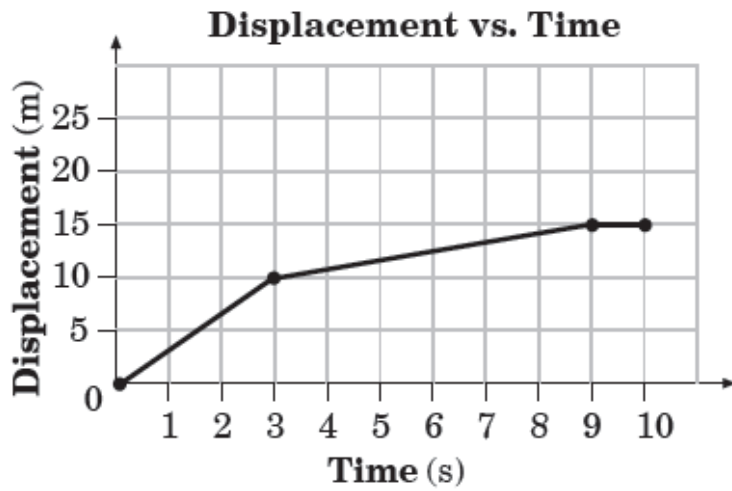
Based on this graph, which is constant?



- position
- time
- speed
- distance

**Question 5****1 pts**

Consider this displacement vs. time graph representing the motion of a bicyclist.



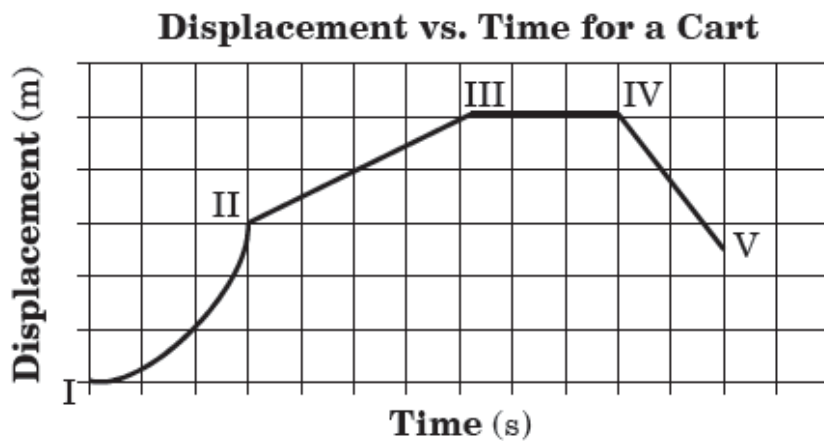
What is the average velocity of the bicyclist between 0 and 3 seconds?

- 5.0 m/s
- 10 m/s
- 7.5 m/s
- 3.3 m/s

### Question 6

1 pts

This displacement time graph below represents the motion of a cart along a straight line.



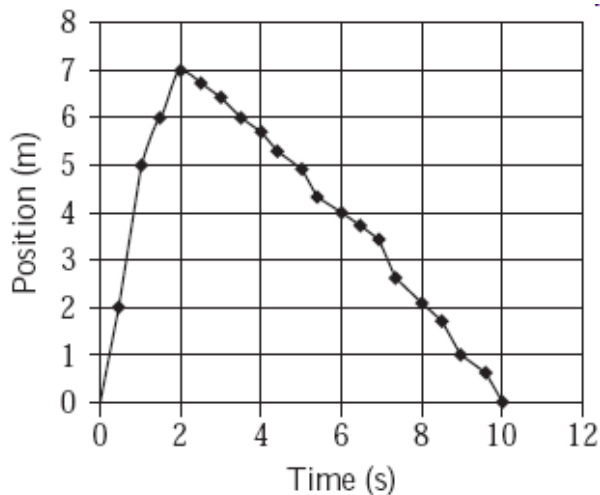
During which interval was the cart moving with a negative velocity

- II-III
- III-IV

I-II

 IV-V
**Question 7****1 pts**

The graph below illustrates the position and time for a dog that runs to catch a stick and then returns with it.



The dog caught the stick after 2 s. What was the dog's average speed as he returned with the stick?

(rounded to the nearest tenth)

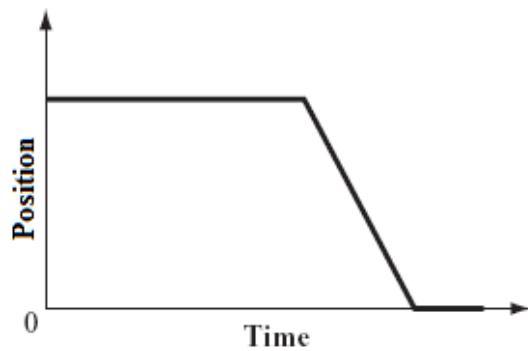
 0.7 m/s

 4 m

 0.9 m/s

 2 m/s
**Question 8****1 pts**

The graph below relates position to time.



The graph would most likely apply to which of the following events?

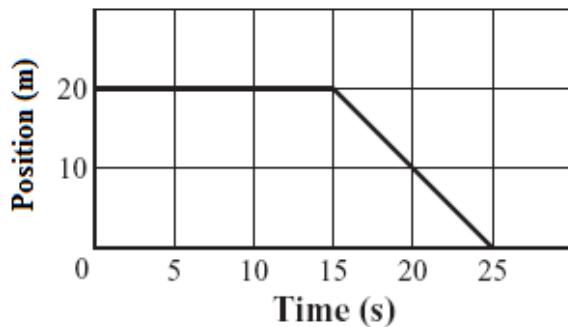
- A soccer ball that is at rest is suddenly kicked
- A ball is thrown upward from the ground, reaches maximum height and returns to the ground.
- A person who is running at a constant speed decides to run faster.
- A car traveling at a constant speed applies its brakes and comes to a stop

### Question 9

1 pts

The graph below shows measurements made as a car moved for 25 s.

#### Motion of a Car



What was the car's velocity during the last 10 s of the trip?

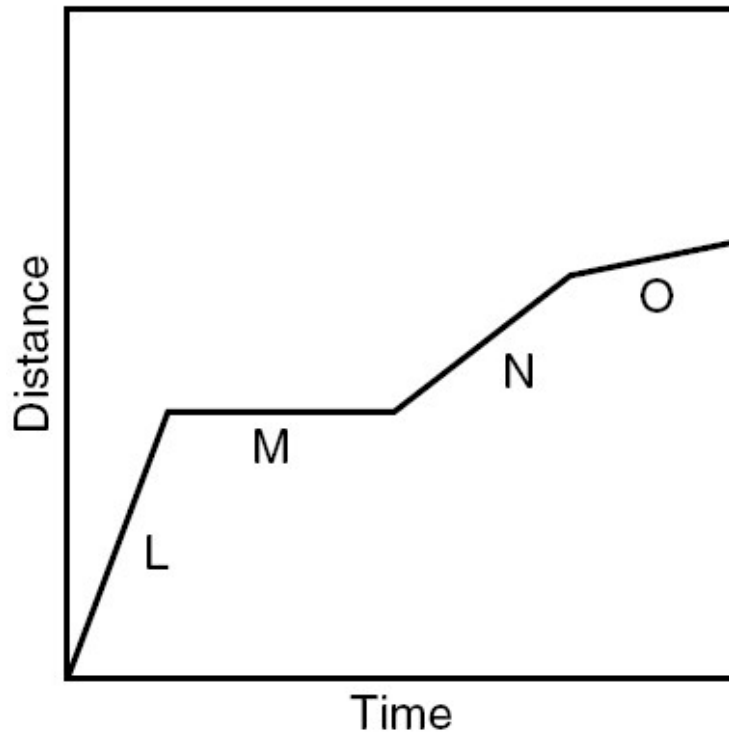
- 2 m/s
- 0 m/s
- 10 m/s
- +10 m/s

## Question 10

1 pts

The graph shows the distance traveled by a vehicle over a certain period of time.

### Speed of a Vehicle



Which segment of the graph shows the vehicle moving with the greatest speed?

- O
- N
- L
- M

Not saved

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