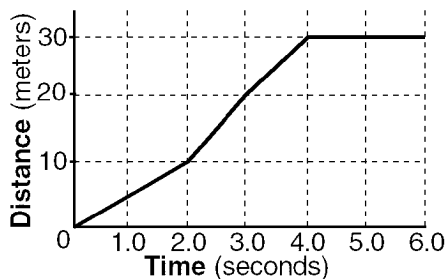


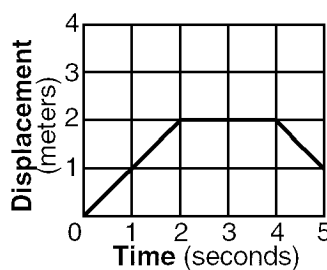
- 6) A baseball pitcher throws a fastball at 42 meters per second. If the batter is 18 meters from the pitcher, approximately how much time does it take for the ball to reach the batter?
- A) 2.3 s B) 0.86 s C) 0.43 s D) 1.9 s
- 7) The average speed of a plane was 600 kilometers per hour. How long did it take the plane to travel 120 kilometers?
- A) 0.7 hour B) 0.2 hour C) 5 hours D) 0.5 hour
- 8) The average speed of a runner in a 400.-meter race is 8.0 meters per second. How long did it take the runner to complete the race
- A) 80. sec B) 40. sec C) 50. sec D) 32. sec
- 9) A runner completed the 100.-meter dash in 10.0 seconds. Her average speed was
- A) 10.0 m/s B) 1,000. m/s C) 0.100 m/s D) 100. m/s
- 10) What is the average speed of an object that travels 6.00 meters north in 2.00 seconds and then travels 3.00 meters east in 1.00 second?
- A) 9.00 m/s B) 3.00 m/s C) 4.24 m/s D) 0.333 m/s
- 11) A car travels between the 100.-meter and 250.-meter highway markers in 10. seconds. The average speed of the car during this interval is
- A) 15 m/s B) 25 m/s C) 35 m/s D) 10. m/s
- 12) A cart starting from rest travels a distance of 3.6 meters in 1.8 seconds. The average speed of the cart is
- A) 5.0 m/s B) 0.20 m/s C) 0.50 m/s D) 2.0 m/s
- 13) A group of bike riders took a 4.0-hour trip. During the first 3.0 hours, they traveled a total of 50. kilometers, but during the last hour they traveled only 10. kilometers. What was the group's average speed for the entire trip?
- A) 60. km/hr B) 15 km/hr C) 30. km/hr D) 40. km/hr
- 14) A car travels a distance of 98 meters in 10. seconds. What is the average speed of the car during this 10.-second interval?
- A) 9.8 m/s B) 4.9 m/s C) 49 m/s D) 98 m/s

- 15) The distance-time graph below represents the position of an object moving in a straight line.



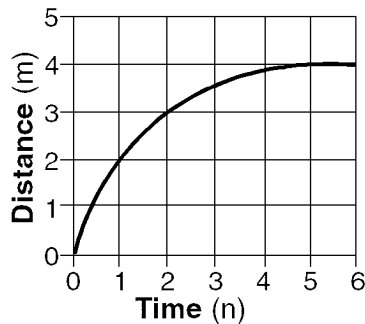
What is the speed of the object during the time interval $t = 2.0$ seconds to $t = 4.0$ seconds?

- A) 7.5 m/s B) 0.0 m/s C) 5.0 m/s D) 10. m/s
- 16) The graph below represents the motion of an object traveling in a straight line as a function of time.



What is the average speed of the object during the *first* four seconds?

- A) 2 m/s B) 1 m/s C) 0.5 m/s D) 0 m/s
- 17) The graph below represents the relationship between distance and time for an object.



What is the instantaneous speed of the object at $t = 5.0$ seconds?

- A) 5.0 m/s B) 0 m/s C) 2.0 m/s D) 4.0 m/s