

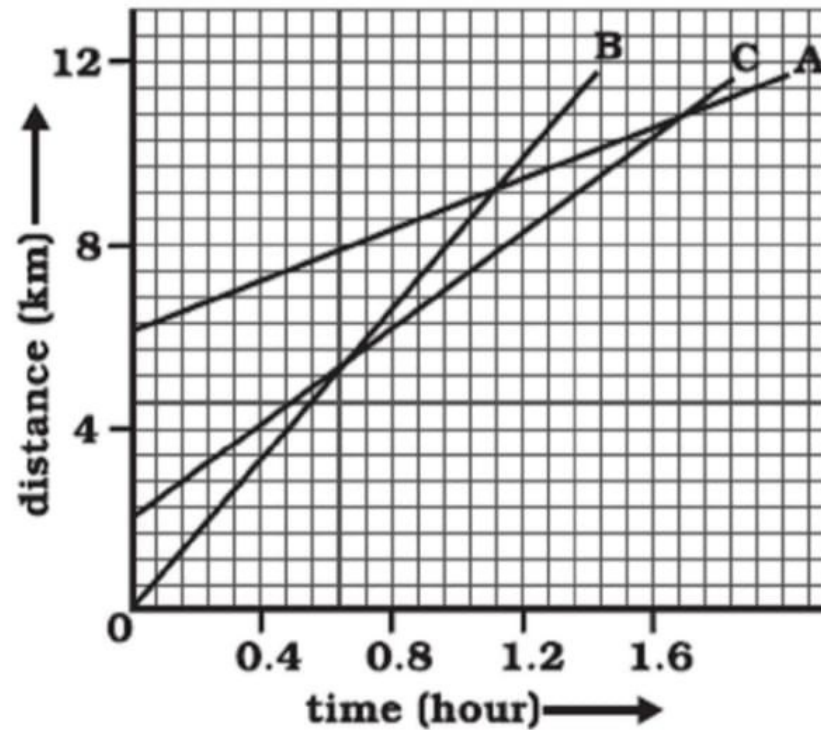
1. An athlete completes one round of a circular track of diameter 200 m in 40 s. What will be the distance covered and the displacement at the end of 2 minutes 20 s?

200 III.

2. Joseph jogs from one end A to the other end B of a straight 300 m road in 2 minutes 50 seconds and then turns around and jogs 100 m back to point C in another 1 minute. What are Joseph's average speeds and velocities in jogging (a) from A to B and (b) from A to C?

3. A scooter acquires a velocity of 36km/h in 10 seconds just after the start. Calculate the acceleration of the scooter.
4. A racing car has uniform acceleration of 4m/s^2 . What distance will it cover in 10 seconds after start?
5. A car acquires a velocity of 72km/h in 10 seconds starting from rest. Find (a) the acceleration (b) the average velocity (c) the distance travelled in this time.

6. Fig 8.11 shows the distance-time graph of three objects A, B and C. Study the graph and answer the following questions:



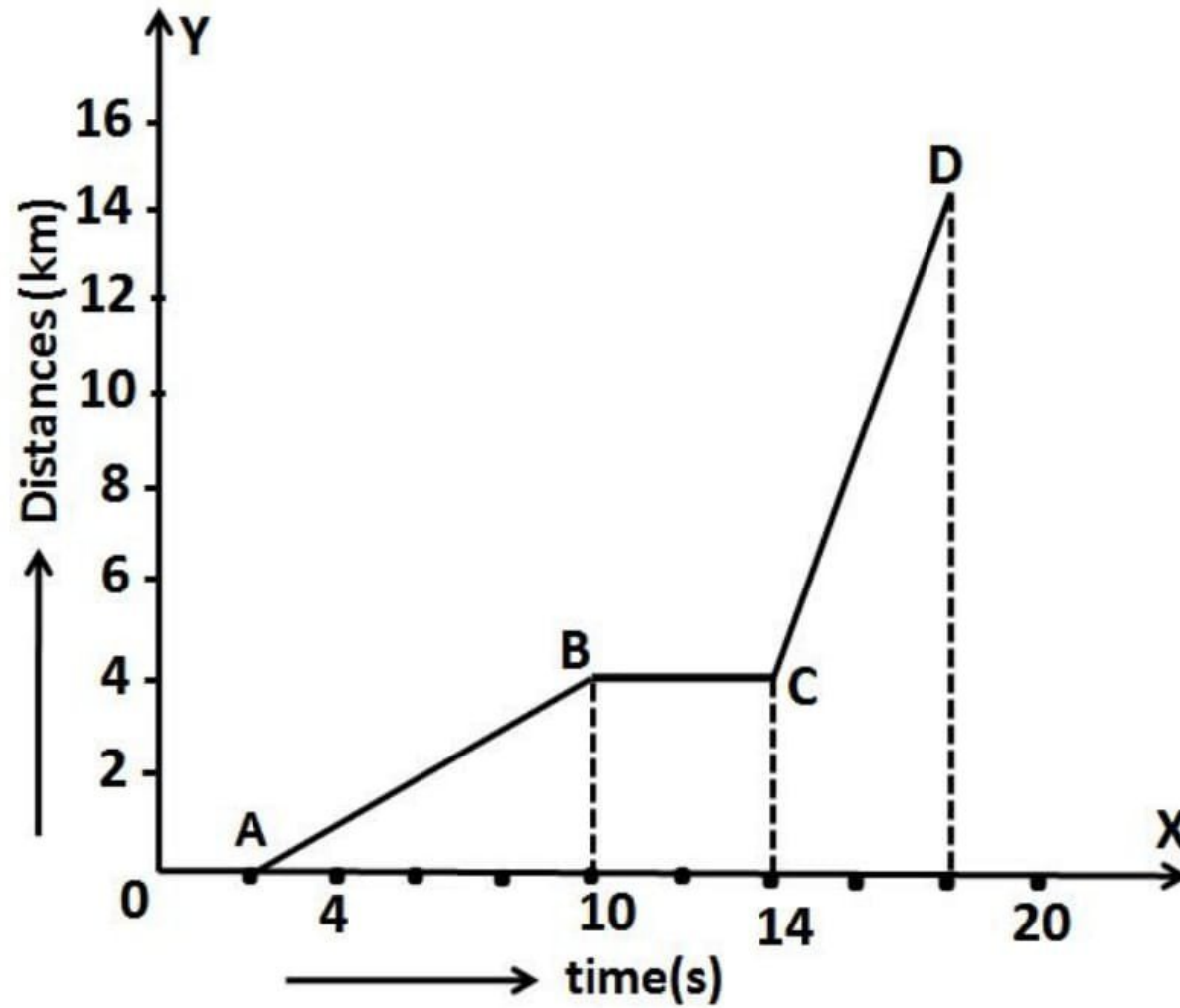
- (a) Which of the three is travelling the fastest?
- (b) Are all three ever at the same point on the road?
- (c) How far has C travelled when B passes A?
- (d) How far has B travelled by the time it passes C?

7. A car is moving on a straight road with uniform acceleration. The following table gives the speed of the car at various instants of time:

Time(t)	0	10	20	30	40	50
Speed(m/s)	5	10	15	20	25	30

Draw the speed time graph choosing a convenient scale. Determine from it (i) the acceleration of the car (ii) the distance travelled by the car in 50 sec.

8. The graph in below figure shows the positions of a body at different times. Calculate the speed of the body as it moves from (i) A to B (ii) B to C and (iii) C to D.



9. Amit is moving in his car with a velocity of 45km/hr. How much distance will he cover
- (a) in one minute and
 - (b) in one second.

10. The graph given below is the velocity-time graph for a moving body. Find (i) velocity of the body at point C (ii) acceleration acting on the body between A and B (iii) acceleration acting on the body between B and C.

