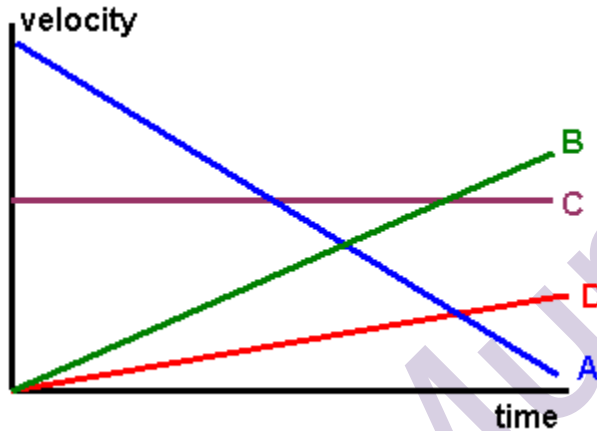


Refer to the following information for the next six questions.

Match the description provided about the behavior of a cart along a linear track to its best graphical representation. Remember that:

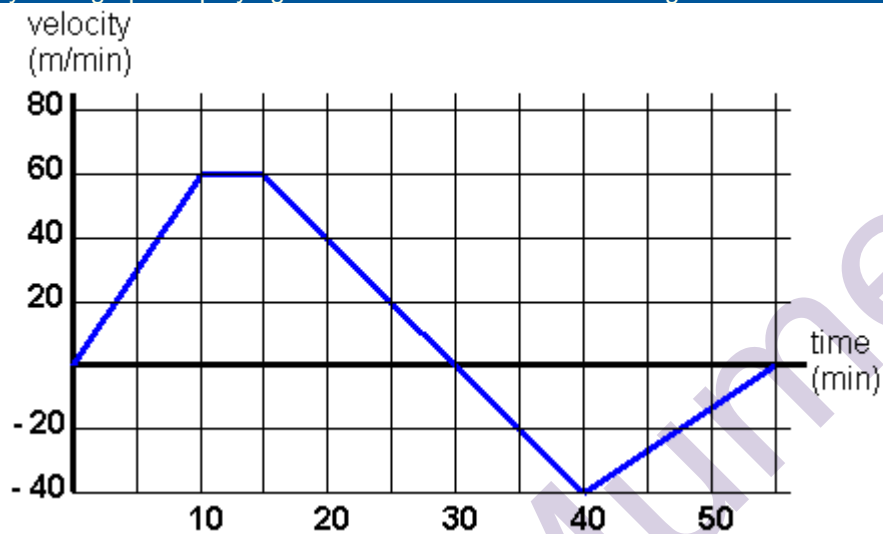


You have to select a right answer from following five options.

A      B      C      D      None of A,B,C and D( no match)

1. moving in a negative direction and losing speed
2. moving in a positive direction and gaining speed at a slow rate
3. traveling at a steady rate in a positive direction
4. at rest for an extended time
5. moving in a positive direction but losing speed
6. moving in a positive direction and gaining speed at a rapid rate

Refer to the following information for the next two questions.  
Given below is a velocity-time graph displaying the behavior of a race cart along a linear track.



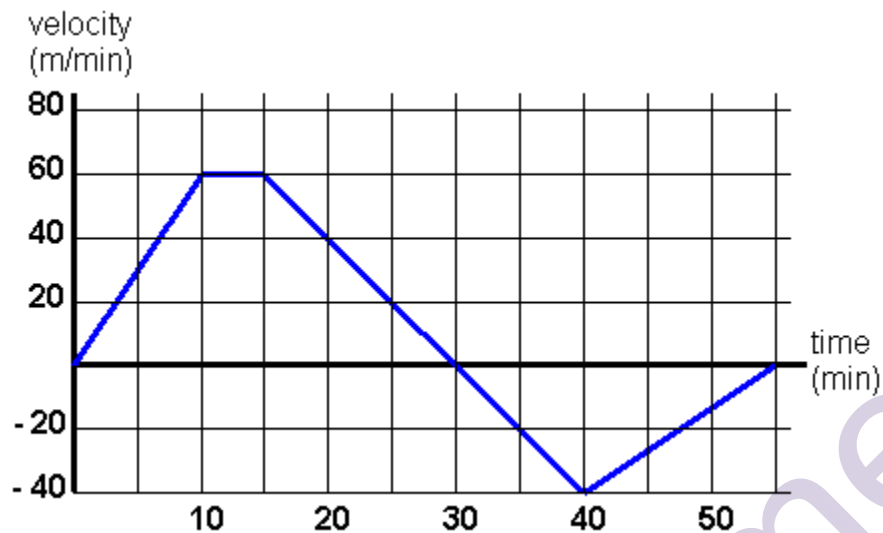
7. During which time interval(s) did it travel in a positive direction?

- 0-10 min     10-15 min     15-30 min     30-40 min     40-55 min

8. During which time interval(s) did it travel in a negative direction?

- 0-10 min     10-15 min     15-30 min     30-40 min     40-55 min

Refer to the following information for the next eight questions.  
Using the same velocity-graph as in section two above, answer these questions regarding how far the cart traveled, its average speeds during each interval, and its displacement. Remember that:



9. How far did the cart travel in the first 10 minutes? What was its average acceleration during this time interval?

10. Briefly describe its behavior between 10 and 15 minutes?

11. What was its average acceleration between 10 and 15 minutes?

12. How far did it travel between 15 and 30 minutes? What was its average acceleration during this time interval?

13. How far did it travel between 30 and 40 minutes? What was its average acceleration during this time interval?

14. How far did it travel between 40 and 55 minutes? What was its average acceleration during this time interval?

15. What was the total distance it traveled? What was its final displacement?

16. What was the cart's average speed for the entire 55 minutes? its average velocity?