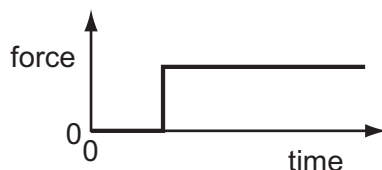


- 8 A goods train passes through a station at a steady speed of 10 m s^{-1} . An express train is at rest at the station. The express train leaves the station with a uniform acceleration of 0.5 m s^{-2} just as the goods train goes past. Both trains move in the same direction on straight, parallel tracks.

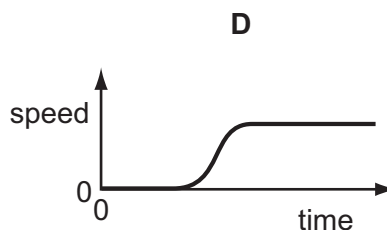
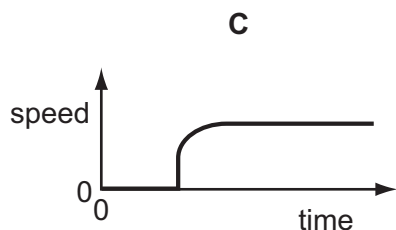
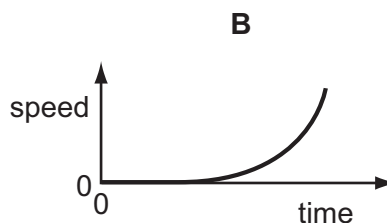
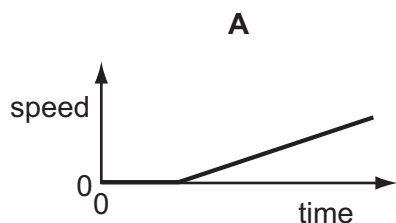
How much time passes before the express train overtakes the goods train?

- A 6 s B 10 s C 20 s D 40 s

- 9 A car is stationary at traffic lights. When the traffic lights go green, the driver presses down sharply on the accelerator. The resultant horizontal force acting on the car varies with time as shown.



Which graph shows the variation with time of the speed of the car?



Space for working