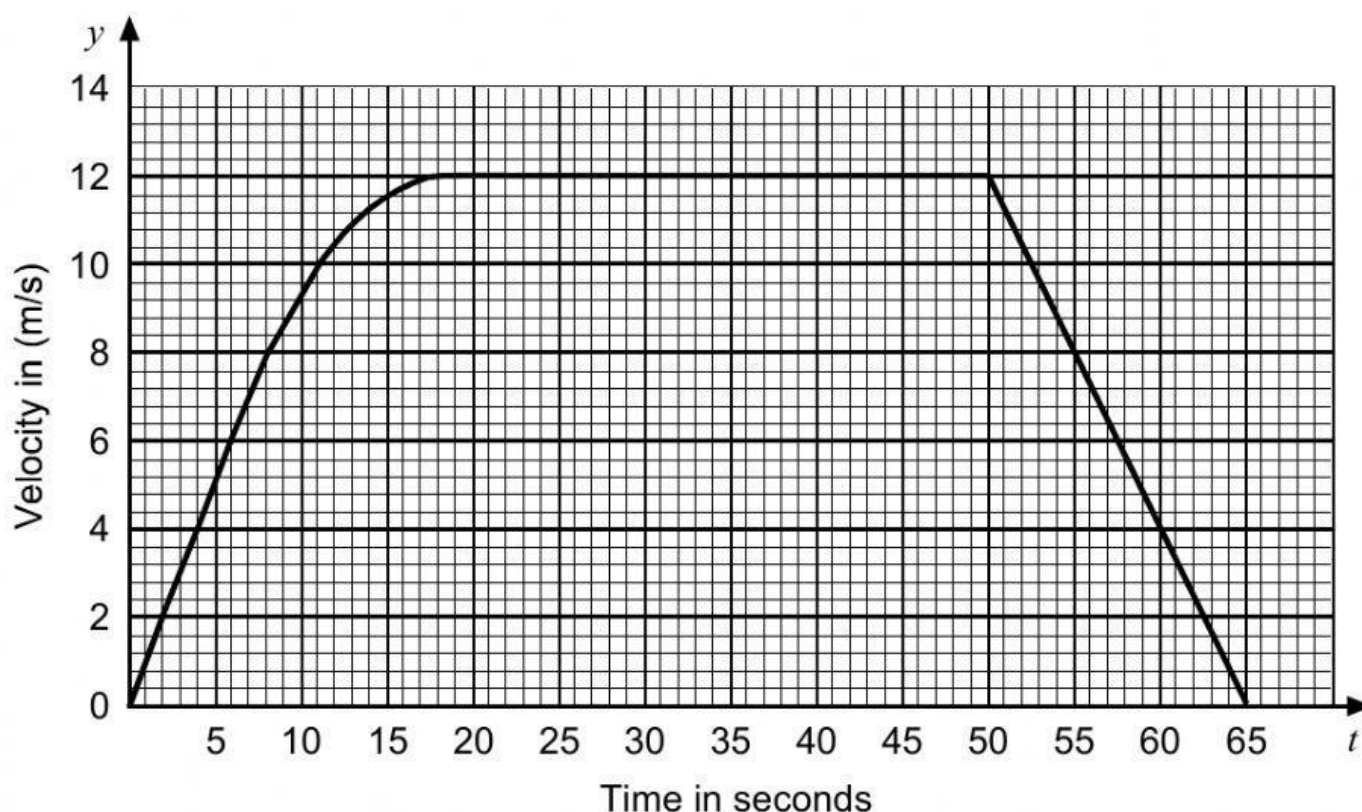


1. A car travels between two sets of traffic lights.
The diagram represents the velocity/time graph of the car.



The car leaves the first set of traffic lights.

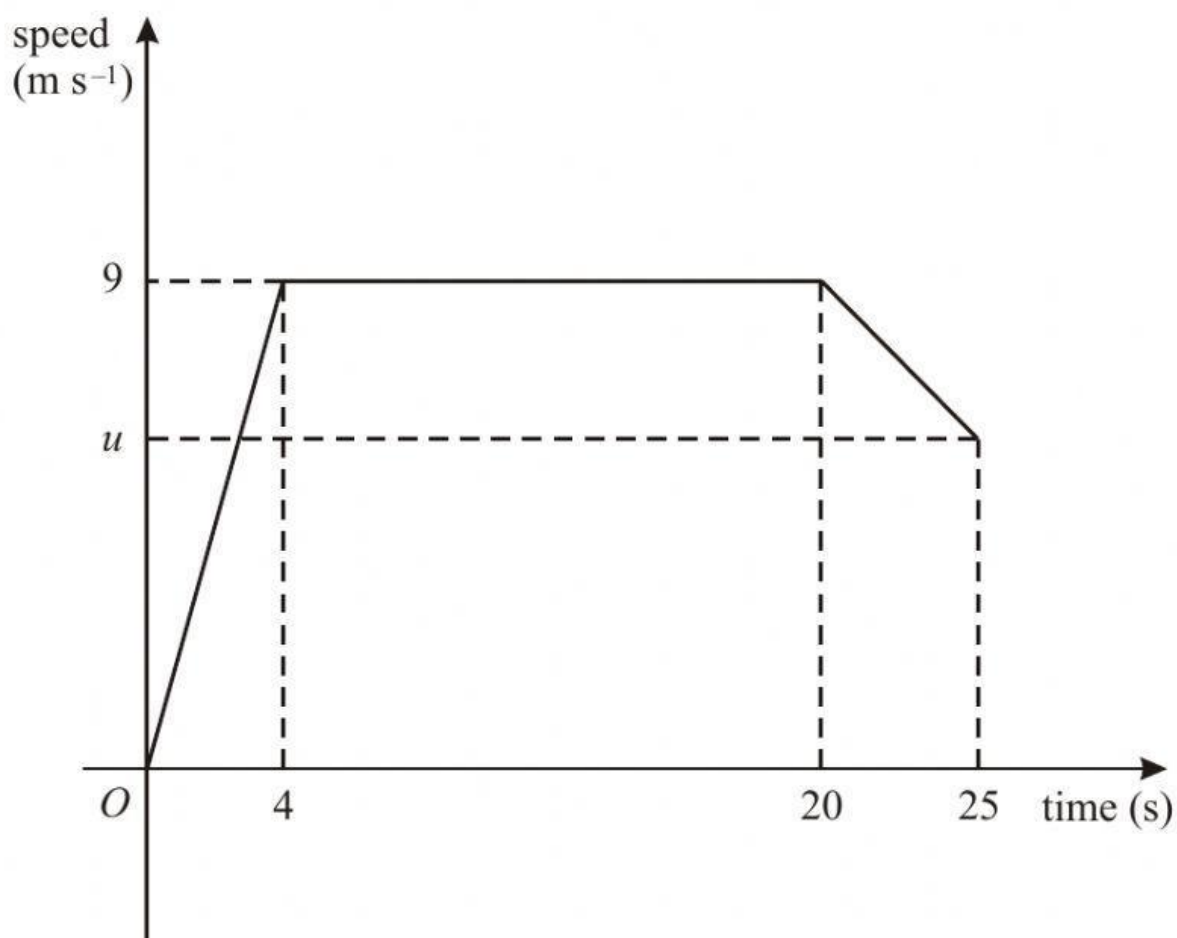
- (a) Use the graph to find the velocity of the car after 15 seconds.

..... (1)

- (b) Calculate an estimate for the acceleration of the car, in m/s^2 , after 10 seconds.

..... (2)

3. A sprinter runs a race of 200 m.
 Her total time for running the race is 25 s.
 Below is a sketch of the speed-time graph for the motion of the sprinter.



Calculate:

- a) The acceleration in the first 4 seconds of the race

..... (2)

- b) The distance covered by the sprinter in the first 20 seconds of the race

..... (2)

- c) The value of u

..... (3)