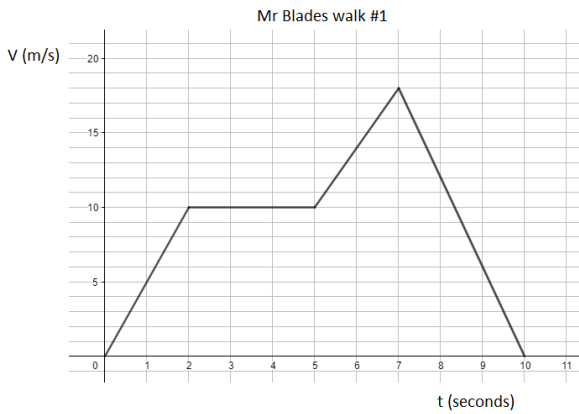


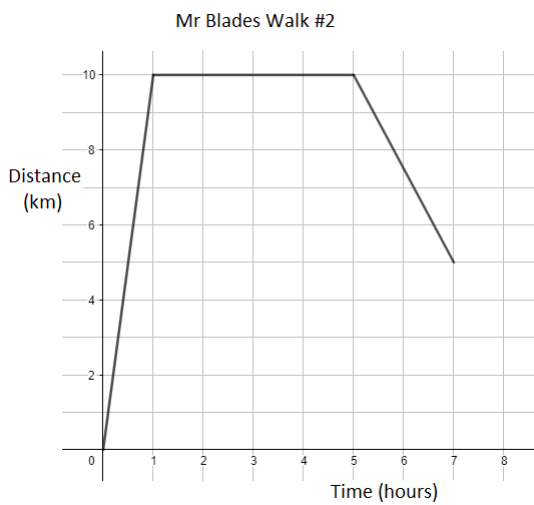
**Velocity/time and Distance/time Graphs – www.m4ths.com**

(1) The V/t graph shows a journey below



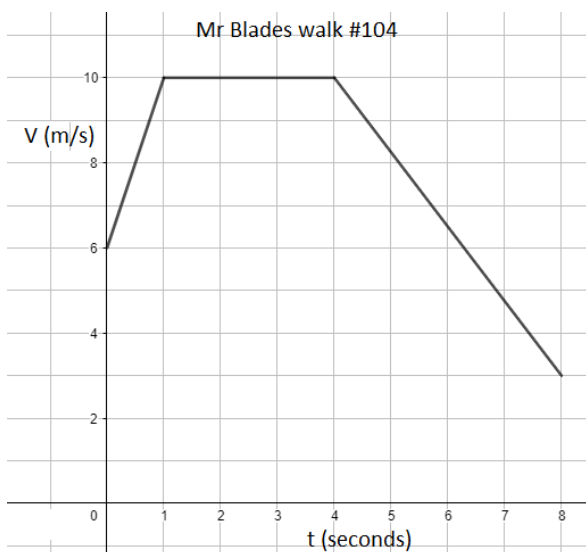
- (a) Find the acceleration in each section
- (b) Find the total distance travelled
- (c) Find the average speed for the entire journey

(2) The Distance/time graphs shows a journey



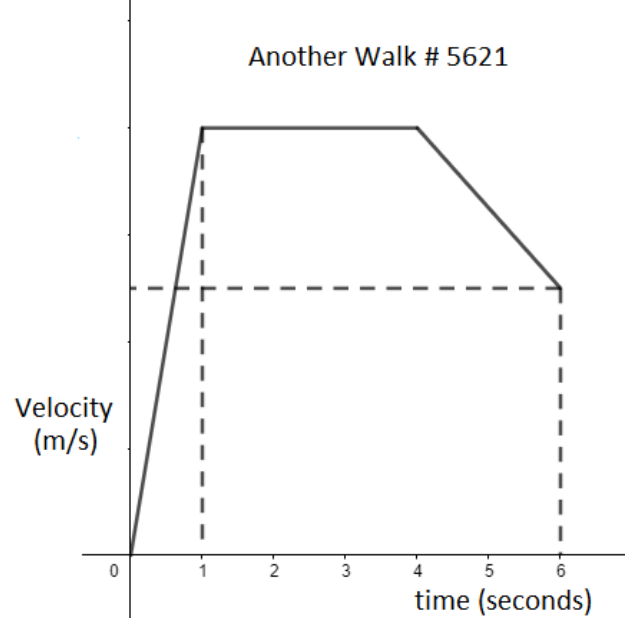
- (a) Find the speed of each section of the journey
- (b) Find the total distance travelled
- (c) Find the average speed for the total journey

(3) The V/t graph shows a journey below



- (a) Find the acceleration in each section
- (b) Find the total distance travelled
- (c) Find the average speed for the entire journey
- (d) For how long was the walker travelling at more than 4m/s?

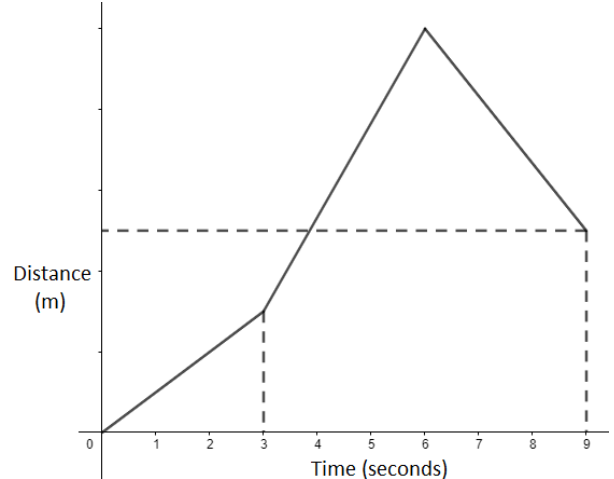
(4) The V/t graph for a walk is shown below



A particle travels from rest to 8m/s in one second  
It maintains this speed and then decelerates to u m/s

- (a) find the acceleration in the first period
- (b) State how long the particle moves with a constant speed.
- Given that the total distance travelled is 41m, find the value of u.
- (d) Find the deceleration in the last part of the journey.

(5) A distance/time graph is shown below



A particle travels from a point for 3 m at 1 m/s  
The speed of the particle then increases its speed and reaches a point 10m away from its starting point. The particle then travels a distance of d meters.

- Given that the speed of the particle is 4/3 m/s in the last phase:
- (a). find the value of d
- (b) find the total distance travelled
- (c) Find the average speed for the whole journey.

(6) Fred travels from rest to a speed of 4m/s in 8 seconds. He then maintains this speed for 6 seconds before coming to rest in a further 4 seconds. Find the total distance he travels.

(7) A particle travels from rest with acceleration of 2 m/s<sup>2</sup> for 10 seconds. It then immediately decelerates to rest again in 5 seconds. Find the total distance travelled.

(8) A particle travels from rest for 8 seconds to a speed of Vm/s  
It maintains this speed for 10 seconds before coming to rest in a further 4 seconds. Given the total distance travelled is 592m, find the value of V.