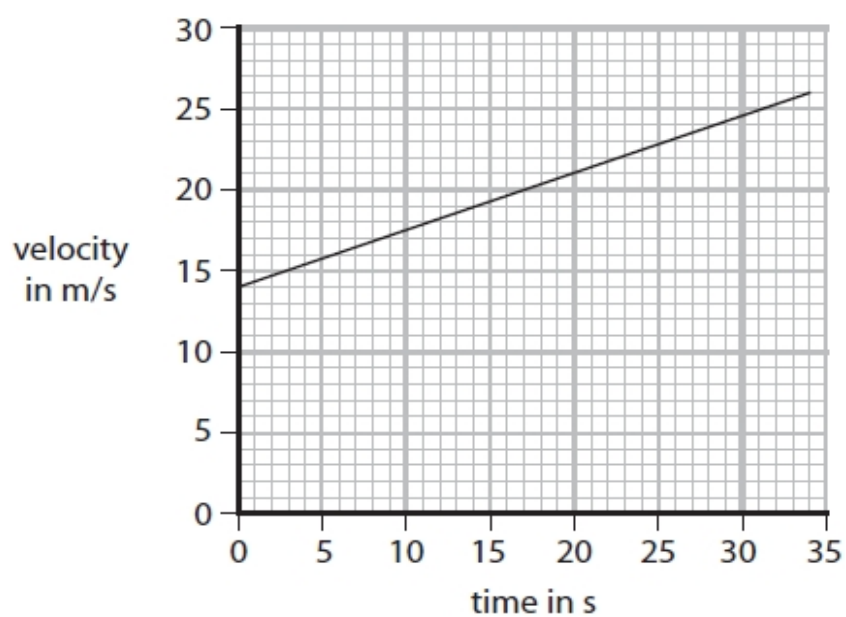


## Questions

Q1.

Figure 7 is a velocity/time graph showing a 34 s part of a train's journey.



**Figure 7**

(i) Calculate the acceleration of the train in the 34 s.

Give your answer to an appropriate number of significant figures.

(3)

acceleration = ..... m/s<sup>2</sup>

(ii) Calculate the distance the train travels in the 34 s.

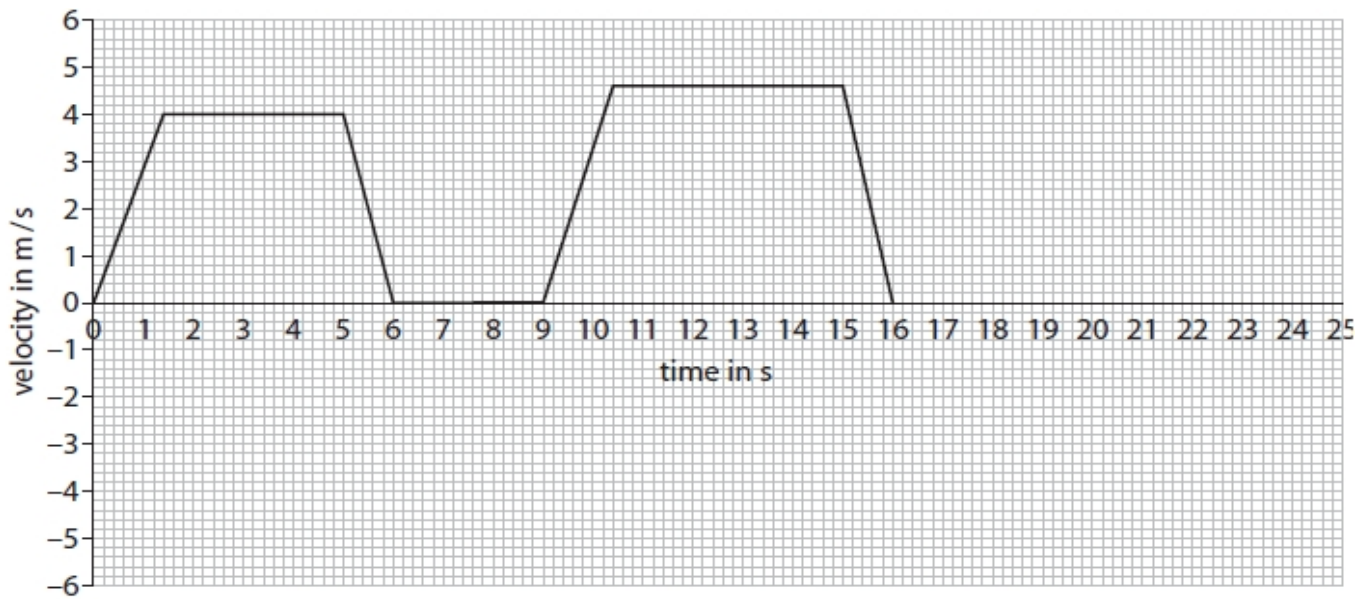
(3)

distance ..... m

**(Total for question = 6 marks)**  
**(Q04b 1SC0/1PH, Nov 2021)**

**Q2.**

Figure 5 is a velocity/time graph for a lift moving upwards in a tall building.



**Figure 5**

Use the graph in Figure 5 to determine the acceleration of the lift during the first 1.4 s.

(3)

acceleration = ..... m/s<sup>2</sup>

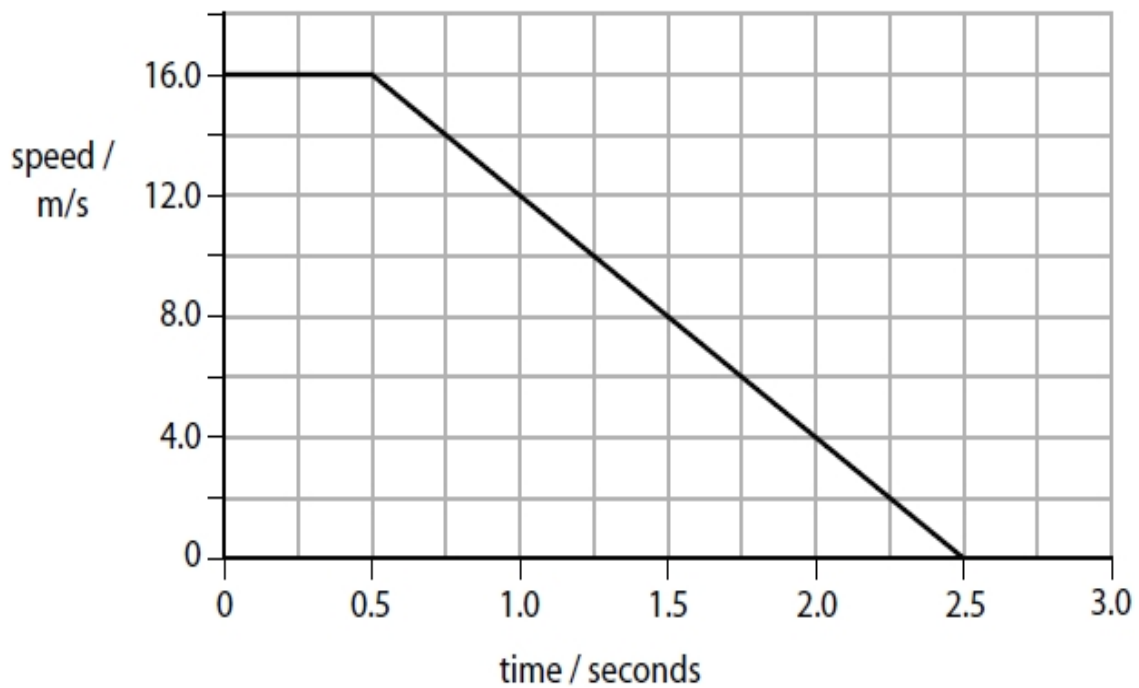
**(Total for question = 3 marks)**  
**(QU03c 1SC0/1PH, June 2023)**

**Q3.**

A car driver sees a rabbit on the road.

The driver makes an emergency stop after he sees the rabbit.

Figure 6 shows the speed of the car from the time the driver sees the rabbit until the car stops.



**Figure 6**

Calculate the distance that the car travels in the first 0.5 seconds.

(3)

distance = ..... m

**(Total for question = 3 marks)**  
**(Q04aii 1SC0/1PF, SAM 2016)**