

1 (a) Circle the vector quantities in the list.

acceleration      mass      speed      time      velocity

[1]

(b) Fig. 1.1 shows the speed–time graph for a train travelling from station A to station B.

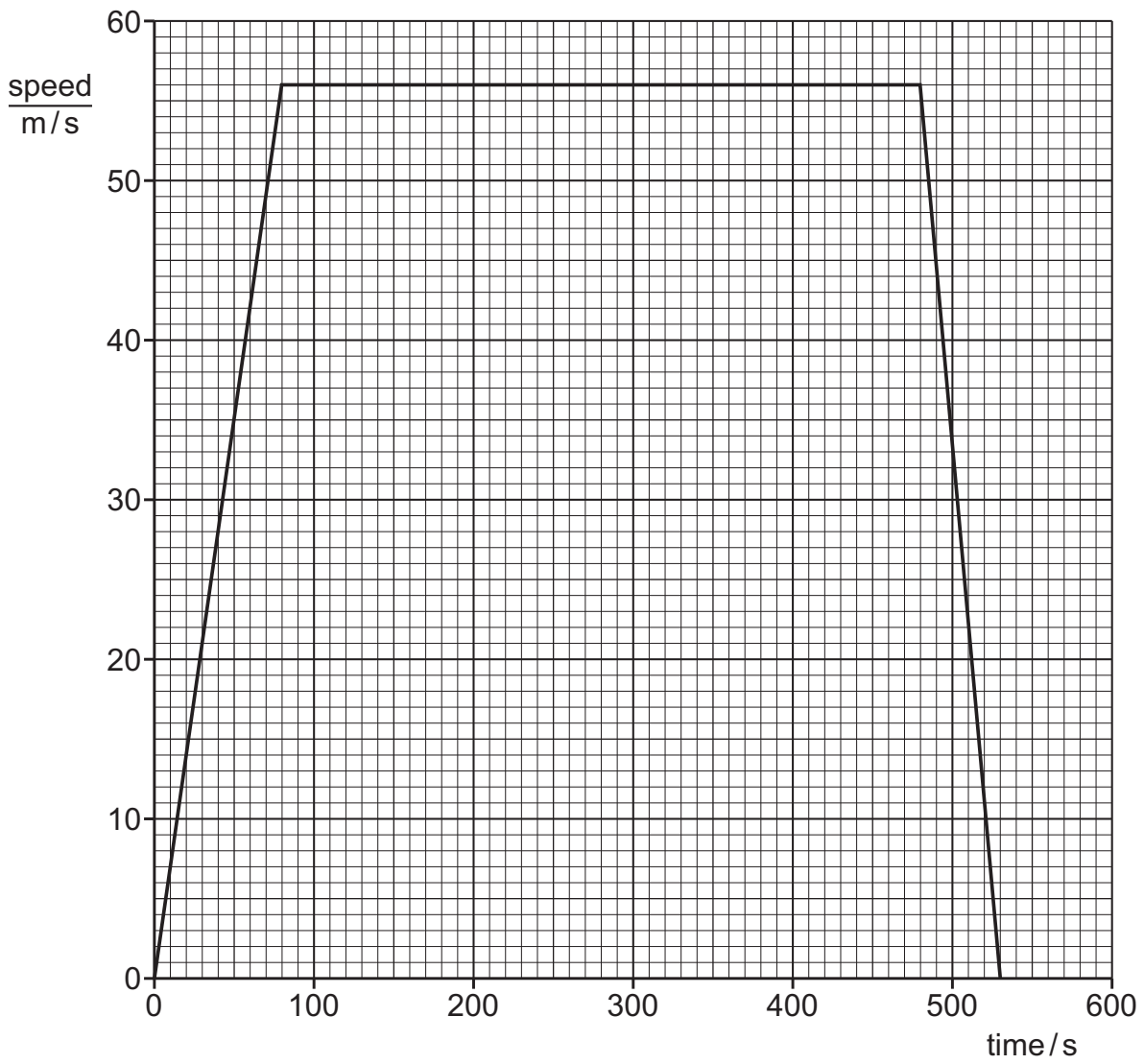


Fig. 1.1

(i) State the maximum speed of the train.

maximum speed = ..... [1]

(ii) Describe the motion of the train between station A and station B.

.....  
.....  
..... [2]

(iii) Calculate the distance between station A and station B.

distance = ..... [3]

(iv) On a different day, the train takes 650s to travel between station A and station B.

Suggest **one** change to the motion of the train that leads to this longer journey time.

.....  
..... [1]

[Total: 8]