Speed, Distance & Time Difficulty: Easy

Question Paper 1

Level	IGCSE
Subject	Maths (0580/0980)
Exam Board	CIE
Topic	Algebra and graphs
Sub-Topic	Speed, Distance & Time
Paper	Paper 2
Difficulty	Easy
Booklet	Question Paper 1

Time allowed: **37 minutes**

Score: **/29**

Percentage: **/100**

Grade Boundaries:

CIE IGCSE Maths (0580)

A*	A	B	C	D	E
>88%	76%	63%	51%	40%	30%

CIE IGCSE Maths (0980)

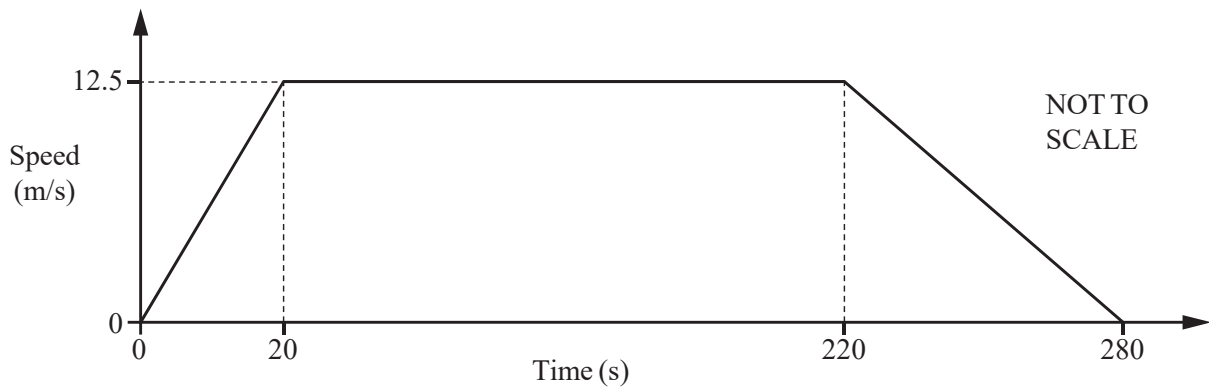| 9	8	7	6	5	4	3
>94%	85%	77%	67%	57%	47%	35%
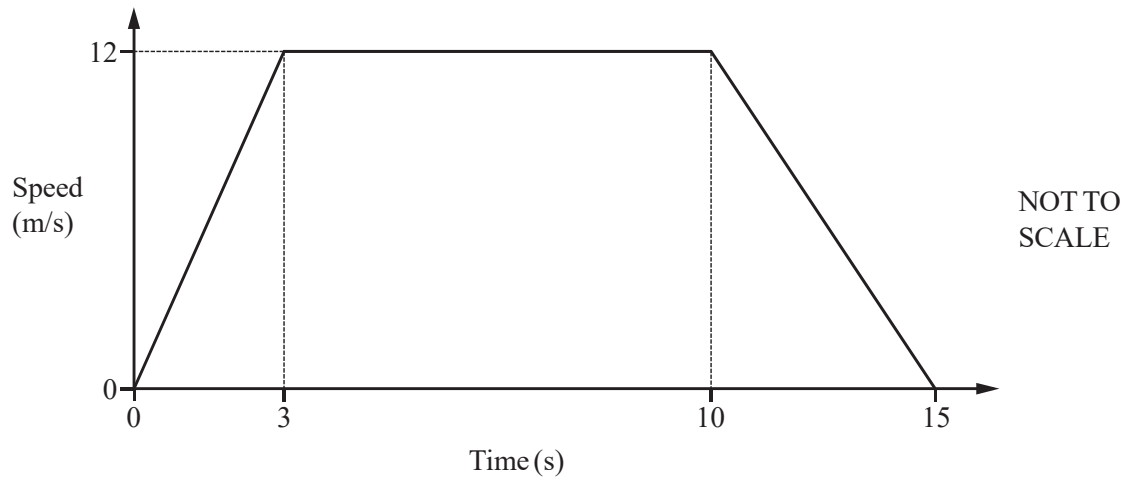
The diagram shows a speed-time graph.

Calculate the total distance travelled. [3]

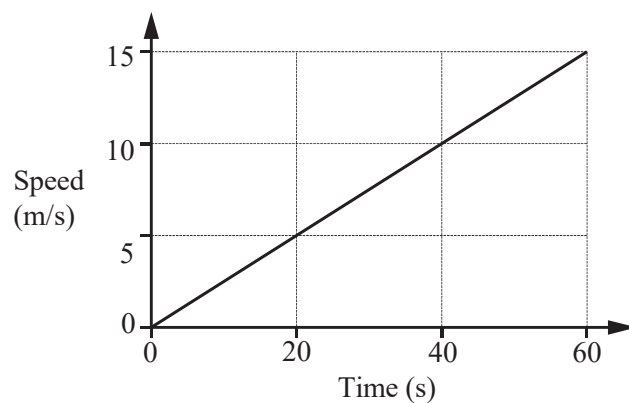The diagram shows a speed-time graph for the journey of a car.

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Calculate the total distance travelled.   [3]

Question 3

The speed-time graph shows the first 60 seconds of a train journey.
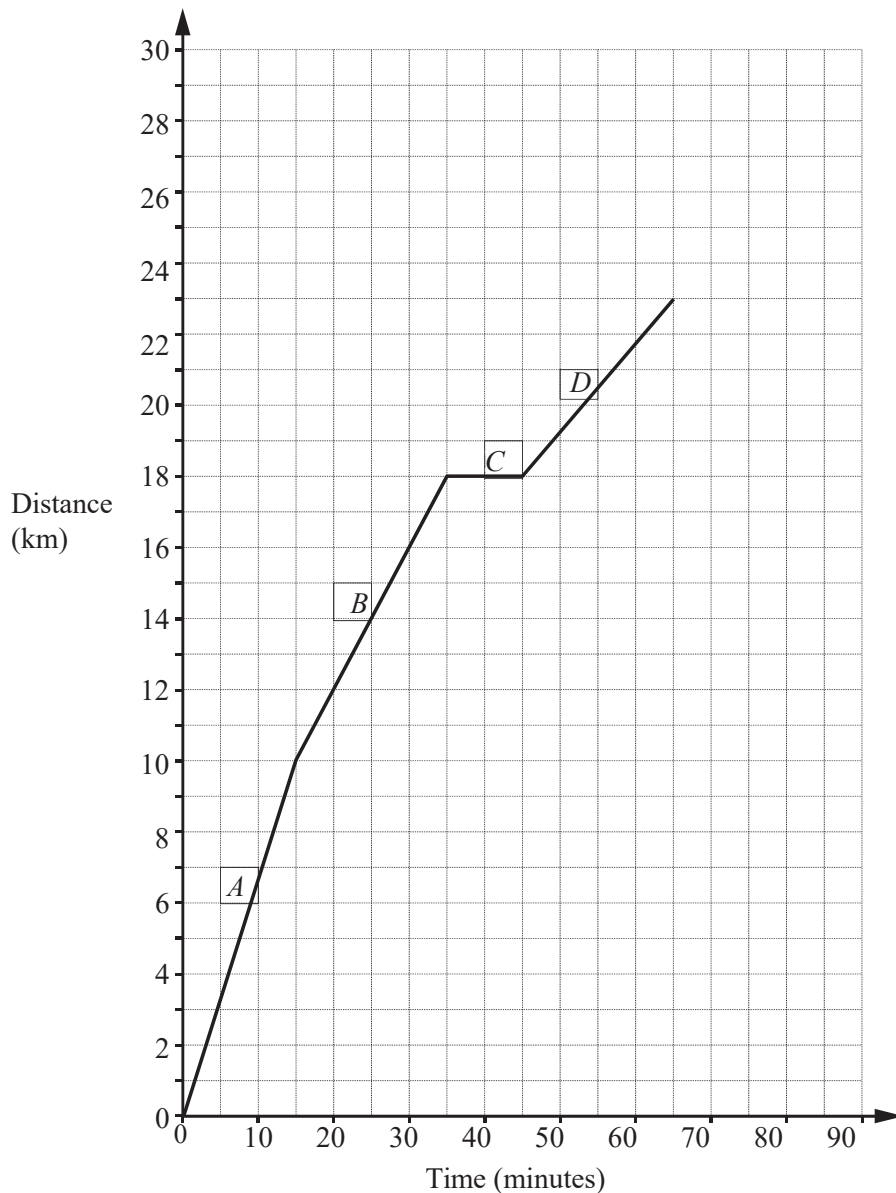

(a) Find the acceleration of the train.   [1]

(b) Calculate the distance the train has travelled in this time.
Give your answer in kilometres.   [3]

The diagram shows the distance-time graph for the first 65 minutes of a bicycle journey.

(a) There are four different parts to the journey labelled *A*, *B*, *C* and *D*.

Write down the part of the journey with the fastest speed. [1]

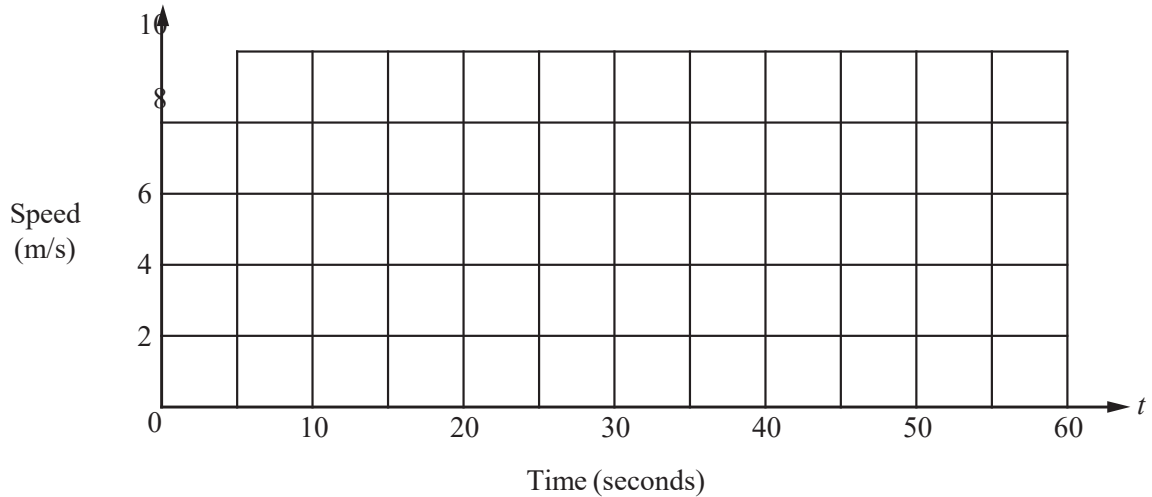**(b)** After the first 65 minutes the bicycle travels at a constant speed of 20 km/h for 15 minutes.

Draw this part of the journey on the diagram. [1]

A car passes through a checkpoint at time $t = 0$ seconds, travelling at 8 m/s.
It travels at this speed for 10 seconds.
The car then decelerates at a constant rate until it stops when $t = 55$ seconds.

(a)   On the grid, draw the speed-time graph.

[2]

(b) Calculate the total distance travelled by the car after passing through the checkpoint.
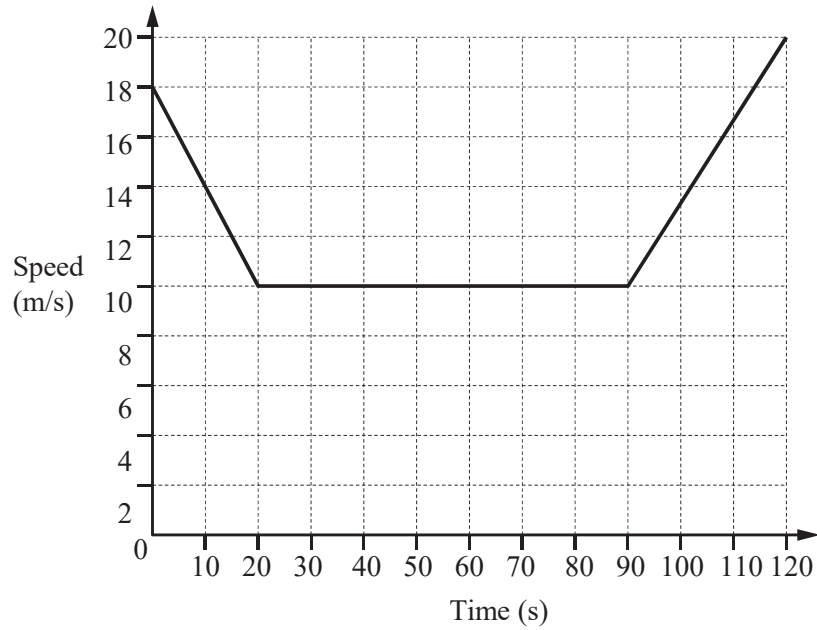
[3]

A car travels a distance of 1280 **metres** at an average speed of 64 kilometres per hour.

Calculate the time it takes for the car to travel this distance.
Give your answer in **seconds**.

[3]

The diagram shows the speed-time graph for 120 seconds of a car journey.

(a) Calculate the deceleration of the car during the first 20 seconds.

[1]

(b) Calculate the total distance travelled by the car during the 120 seconds.

[3]

(c) Calculate the average speed for this 120 second journey.

[1]

8

Fritz drives a distance of 381 km in 2 hours and 18 minutes.
He then drives 75 km at a constant speed of 30 km/h.

Calculate his average speed for the whole journey.   [4]