IGCSE Speed/Time Paper 4

Oct 06 Paper 4

1 (a) A train completed a journey of 850 kilometres with an average speed of 80 kilometres per hour. Calculate, giving **exact** answers, the time taken for this journey in

(i) hours, [2]

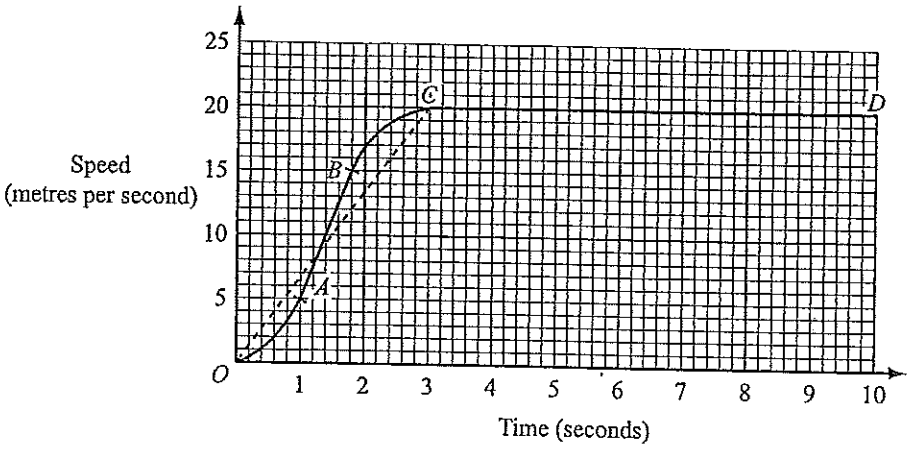
(ii) hours, minutes and seconds. [1]

(b) Another train took 10 hours 48 minutes to complete the same 850 km journey.

(i) It departed at 1920.
At what time, on the next day, did this train complete the journey? [1]

(ii) Calculate the average speed, in kilometres per hour, for the journey. [2]

(c)



The **solid** line *OABCD* on the grid shows the first 10 seconds of a car journey.

(i) Describe briefly what happens to the **speed** of the car between *B* and *C*. [1]

(ii) Describe briefly what happens to the **acceleration** of the car between *B* and *C*. [1]

(iii) Calculate the acceleration between *A* and *B*. [2]

(iv) Using the **broken** straight line *OC*, estimate the total distance travelled by the car in the whole 10 seconds. [3]

(v) Explain briefly why, in this case, using the broken line makes the answer to **part (iv)** a good estimate of the distance travelled. [1]

(vi) Calculate the average speed of the car during the 10 seconds.
Give your answer in kilometres per hour. [2]

Oct 02 Paper 4

1 (a) At an athletics meeting, Ben's time for the 10000 metres race was 33 minutes exactly and he finished at 15 17.

(i) At what time did the race start? [1]

(ii) What was Ben's average speed for the race? Give your answer in kilometres per hour. [2]

(iii) The winner finished 51.2 seconds ahead of Ben.
How long did the winner take to run the 10000 metres? [1]

(b) The winning distance in the javelin competition was 80 metres.
Otto's throw was 95% of the winning distance.
Calculate the distance of Otto's throw. [2]

(c) Pamela won the long jump competition with a jump of 6.16 metres.
This was 10% further than Mona's jump.
How far did Mona jump? [2]