

Edexcel GCSE

Mathematics (Linear) – 1MA0

TIME TABLES & DISTANCE TABLES

Materials required for examination

Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser.
Tracing paper may be used.

Items included with question papers

Nil

**Instructions**

Use black ink or ball-point pen.

Fill in the boxes at the top of this page with your name, centre number and candidate number.

Answer all questions.

Answer the questions in the spaces provided – there may be more space than you need.

Calculators may be used.

Information

The marks for each question are shown in brackets – use this as a guide as to how much time to spend on **each** question.

Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed – you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.

Advice

Read each question carefully before you start to answer it.

Keep an eye on the time.

Try to answer every question.

Check your answers if you have time at the end.

1. Here is part of a railway timetable.

Manchester	07 53	09 17	10 35	11 17	13 30	14 36	16 26
Stockport	08 01	09 26	10 43	11 25	13 38	14 46	16 39
Macclesfield	08 23	09 38	10 58	11 38	13 52	14 58	17 03
Congleton	08 31	—	—	11 49	—	15 07	17 10
Kids Grove	08 37	—	—	—	—	—	17 16
Stoke-on-Trent	08 49	10 00	11 23	12 03	14 12	15 19	17 33

A train leaves Manchester at 10 35.

- (a) At what time should this train arrive in Stoke-on-Trent?

...11.23...

(1)

Doris has to go to a meeting in Stoke-on-Trent.

She will catch the train in Stockport.

She needs to arrive in Stoke-on-Trent before 2 pm for her meeting.

- (b) Write down the time of the latest train she can catch in Stockport.

...11.25...

(1)

- (c) Work out how many minutes it should take the 14 36 train from Manchester to get to Stoke-on-Trent.

14.36 $\xrightarrow{24}$ 15.00 $\xrightarrow{19}$ 15.19

...43... minutes

(1)

The 14 36 train from Manchester to Stoke-on-Trent takes less time than the 16 26 train from Manchester to Stoke-on-Trent.

- (d) How many minutes less?

16.26 $\xrightarrow{34}$ 17.00 $\xrightarrow{33}$ 17.33

...24... minutes

(2)

(5 marks)

2. Here is part of a train timetable for six trains from Birmingham to London.

Train	A	B	C	D	E	F
Birmingham	06 35	07 00	07 15	07 30	07 45	08 00
London	08 09	08 39	08 48	09 04	09 59	09 39

- (a) Which train takes more than 2 hours to go from Birmingham to London?

..... E (1)

- (b) Work out the number of **minutes** taken by train **D** to go from Birmingham to London.

7:30 $\xrightarrow{30}$ 8:00 $\xrightarrow{1h}$ 9:00 $\xrightarrow{4min}$

..... 94 minutes (2)

Paula has to go to a meeting in London.
She will catch one of the six trains from Birmingham.
She needs to arrive in London before 09 00

- (c) Write down the latest train that she can catch.

..... C (1)

(4 marks)

3. The table shows part of a bus timetable from Shotton to Alton.

Shotton	07 30	08 00	09 00	10 00	11 00
Crook	07 45	08 15	09 15	10 15	11 15
Prudhoe	07 58	08 28	09 28	10 28	11 28
Hexham	08 15	08 45	09 45	10 45	11 45
Alton	08 30	09 00	10 00	11 00	12 00

A bus leaves Shotton at 07 30

- (a) What time should it arrive at Alton?

.....8.30.....
(1)

Another bus leaves Prudhoe at 08 28

- (b) How many minutes should it take to get to Hexham?

$$\begin{array}{r} 3 \text{ } 45 \\ - 28 \\ \hline 17 \end{array}$$

.....17..... minutes
(1)

Serena lives in Crook.

She has to be in Hexham by quarter past 11

- (c) What is the time of the latest bus she can catch from Crook to arrive in Hexham by quarter past 11?

.....10.15.....
(1)
(3 marks)

4. Here is part of a timetable for a bus.

Blunsdon	07 18	07 45	08 33
Cricklade	07 26	07 53	08 41
Latton	07 31	07 58	08 46
South Cerney	07 38	08 05	08 53
Siddington	07 47	08 14	09 02
Seven Springs	08 26	08 51	09 39
Cheltenham	08 50	09 12	10 00

A bus leaves Blunsdon at 07 45

- (a) At what time should the bus arrive at Siddington?

..... 8.14
(1)

Peter arrives at the Latton bus stop at 08 35
He waits for the next bus to Seven Springs.

- (b) (i) How many minutes should he wait?

..... 11 minutes

- (ii) At what time should Peter arrive at Seven Springs?

..... 9.39
(2)

Marie gets the bus from Cricklade at 07 26

- (c) How many minutes should this bus take to travel from Cricklade to Cheltenham?

7.26 $\xrightarrow{34}$ 8.00 $\xrightarrow{50}$ 8.50

..... 84 minutes
(2)

(5 marks)

5. The table shows part of a train timetable from Weymouth to London Waterloo.

Weymouth	0903	0920	1003	1020	1103
Poole	0940	1007	1040	1107	1140
Bournemouth	0953	1017	1054	1117	1154
Southampton	1026	1058	1128	1158	1228
Woking	1119		1219		1319
London Waterloo	1149	1220	1249	1320	1349

A train leaves Weymouth at 09 03

- (a) At what time should it arrive at London Waterloo?

.....11.49.....
(1)

Another train leaves Poole at 11 40

- (b) How many minutes should it take to travel to Bournemouth?

.....14..... minutes
(1)

Sally lives in Weymouth.

She has a meeting in Southampton at 12 00

When Sally arrives at Southampton she takes 25 minutes to travel to her meeting.

- (c) What is the time of the latest train she can take from Weymouth?

.....10.03.....
(1)

(3 marks)

6. Here is part of a railway timetable.

Cambridge	08 25	08 45	08 54	09 26	09 50
Royston	08 46	08 59	09 15	09 43	10 04
Letchworth Garden City	09 00	09 09	09 29	09 54	10 14
Hitchin	09 04	09 33	09 58	-	-
Stevenage	09 10	-	09 39	10 03	-
Finsbury Park	09 41	-	10 09	10 21	-
London	09 50	09 42	10 18	10 30	10 46

A train leaves Cambridge at 09 26

- (a) At what time should this train arrive in London?

.....10.30.....
(1)

A different train leaves Cambridge at 09 50

- (b) Work out how many minutes this train should take to get to London.

10 + 46

.....56..... minutes
(1)

Susan lives in Royston.

She has to be in Stevenage by 10 a.m.

- (c) What is the time of the latest train she can catch from Royston to arrive in Stevenage by 10 a.m.?

.....9.15.....
(1)

(3 marks)

7. Here is part of a train timetable from Birmingham to Leicester.

Birmingham	06 23	06 53	07 23	07 53
Coleshill	06 35	07 05	07 35	08 05
Nuneaton	07 00	07 22	07 51	08 22
Hinckley	00 00	07 29	07 58	08 29
Leicester	07 17	07 48	08 17	08 48

A train leaves Birmingham at 06 53

- (a) (i) What time should this train get to Hinckley?

.....7:29.....

- (ii) How many minutes should this train take to get to Hinckley?

.....36..... minutes
(2)

Silvia wants to catch a train in Nuneaton.
She needs to get to Leicester **before** 08 30

- (b) Write down the time of the latest train Silvia can catch from Nuneaton.

.....7.51.....
(1)

A train will leave Leicester at 07 27 for Stansted Airport.
The train should take 2 hours 28 minutes to go from Leicester to Stansted Airport.

- (c) What time should the train get to Stansted Airport?

7:27 $\xrightarrow{1h}$ 8:27 $\xrightarrow{1h}$ 9:27 $\xrightarrow{28mins}$ 9.55

.....9.55.....
(1)

(4 marks)

8. Here is part of a train timetable from Crewe to London.

Station	Time of Leaving
Crewe	08 00
Wolverhampton	08 40
Birmingham	09 00
Coventry	09 30
Rugby	09 40
Milton Keynes	10 10

- (a) At what time should the train leave Coventry?

..... 9.30
(1)

The train should arrive in London at 10 45

- (b) How long should the train take to travel from Crewe to London?

..... 2 hrs 45 mins
(2)

Verity arrived at Milton Keynes station at 09 53

- (c) How many minutes should she have to wait before the 10 10 train leaves?

..... 17 minutes
(1)

Lisa uses her railcard to buy a ticket.

She gets $\frac{1}{3}$ off the normal price of the ticket.

The normal price of the ticket is £24.90

- (d) Work out how much Lisa pays for the ticket.

Young Person's RAILCARD
 $\frac{1}{3}$ off normal price

$$\begin{array}{r} 8.30 \\ 3 \overline{) 24.90} \end{array}$$

$$\begin{array}{r} 24.90 \\ - 8.30 \\ \hline 16.60 \end{array}$$

£ 16.60

(3)

(7 marks)

9. The table shows the distances in kilometres between some cities in the USA.

Boston					
1589	Chicago				
4891	3366	Los Angeles			
2474	2184	4373	Miami		
342	1352	4539	2133	New York	
5067	3493	667	4990	4826	San Francisco

- (a) Write down the distance between Los Angeles and New York.

.....4539.....km (1)

One of the cities in the table is 2184 km from Miami.

- (b) Write down the name of this city.

.....Chicago..... (1)

- (c) Write down the name of the city which is furthest from San Francisco.

.....Boston..... (1)

(3 marks)

10. The table shows the distances in kilometres between 5 cities.

Hull				
100	Leeds			
162	73	Manchester		
110	60	65	Sheffield	
63	40	118	95	York

- (a) Write down the distance between Hull and Manchester.

.....162..... km (1)

- (b) From the table, write down the name of the city which is

- (i) nearest to Hull,

.....York.....

- (ii) 60 km from Sheffield.

.....Leeds.....

(2)

(3 marks)

11.

Reading				
22	Slough			
28	40	Guildford		
30	22	47	Oxford	
45	28	66	25	Buckingham

The table gives distances in miles by road between some towns.

(a) Write down the distance between Reading and Guildford.

.....28..... miles
(1)

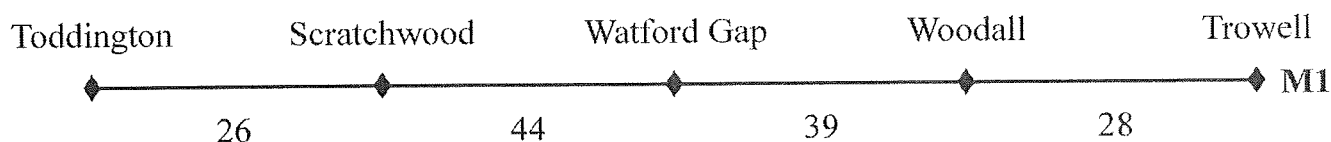
Sophie drives from Slough to Guildford.
She then drives from Guildford to Reading.
Sophie then drives from Reading to Slough.

(b) Work out the total distance that she drives.

$$40 + 28 + 22$$

.....90..... miles
(2)
(3 marks)

12. The diagram shows the distances, in miles, between some service areas on the M1 motorway.



For example, the distance between Toddington and Watford Gap is 70 miles.

Complete the table.

Toddington				
26	Scratchwood			
70	44	Watford Gap		
109	83	39	Woodall	
137	111	67	28	Trowell

$$\begin{array}{r} 26 \\ 44 \\ \hline 70 \end{array}$$

$$\begin{array}{r} 39 \\ +28 \\ \hline 67 \end{array}$$

$$\begin{array}{r} 70 \\ +28 \\ \hline 98 \end{array}$$

(3 marks)

13. The table shows the distances, in miles, between 4 cities.

London			
74	Portsmouth		
39	58	Reading	
97	41	57	Salisbury

- (a) Write down the distance between London and Salisbury.

.....97..... miles
(1)

- (b) Which two cities are the shortest distance apart?

.....London..... andReading.....
(1)

Nassim drives from Portsmouth to Salisbury.
He then drives from Salisbury to Reading.
Finally he drives from Reading to Portsmouth.

- (c) Work out the total distance Nassim drives.

$$41 + 57 + 58$$

$$\begin{array}{r} 41 \\ 57 \\ \underline{58} \\ 156 \end{array}$$

.....156..... miles
(3)

(5 marks)