

FULL MODEL ANSWERS

Q1. NON-CALCULATOR

How many minutes are there in $3\frac{1}{2}$ hours?

$$3\frac{1}{2} \times 60$$

$$3 \times 60 = 180 \qquad \frac{1}{2} \times 60 = 30$$

$$180 + 30 = \underline{\hspace{2cm}} 210 \dots\dots\dots \text{minutes}$$

(Total for question = 1 mark)

Q2. NON-CALCULATOR

How many minutes are there in $3\frac{1}{4}$ hours?

$$3\frac{1}{4} \times 60$$

$$3 \times 60 = 180 \qquad \frac{1}{4} \times 60 = 15$$

$$180 + 15 = \underline{\hspace{2cm}} 195 \dots\dots\dots \text{minutes}$$

(Total for question is 1 mark)

Q3. NON-CALCULATOR

Ruth left her home at 9 am and walked to the library.
She got to the library at 10 30 am.
Ruth walked at a speed of 4 mph.

(a) Work out the distance Ruth walked.

9am to 1030am is $1\frac{1}{2}$ hours

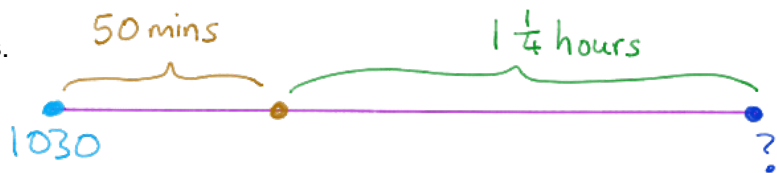
4 miles in 1 hour

2 miles in $\frac{1}{2}$ hour

$$\underline{\hspace{2cm}} 6 \dots\dots\dots \text{miles}$$

(2)

Ruth got to the library at 10 30 am.
She stayed at the library for 50 minutes.
Then she walked home.



Ruth took $1\frac{1}{4}$ hours to walk home.

(b) At what time did Ruth get home?

$$1030 + 50\text{mins}$$

$$= 1120\text{am}$$

$$1120\text{am} + 1\frac{1}{4}\text{hours}$$

$$= 1220\text{pm} + \frac{1}{4}\text{hr}$$

$$\underline{\hspace{2cm}} 1235\text{pm} \dots\dots\dots$$

(2)

(Total for question = 4 marks)

Q4. CALCULATOR ALLOWED

Brighton	07 22	07 29	07 32
London	09 00	08 32	08 48

Here is part of a train timetable.

Graham gets to the station in Brighton at 07 15

has to wait until 07 22

(a) Work out how many minutes he

07 15.....07 22

..... 7 minutes
(1)

(b) Work out how long it will take the 07 22 train to get to London.

1 hour ↓
07 22 ----- 09 00
08 22 -----

..... 1 hour 38 minutes
(2)

(Total for question = 3 marks)

Q5. CALCULATOR ALLOWED

Here is part of a train timetable from Swindon to London.

Swindon to London							
Swindon	06 10	06 27	06 41	06 58	07 01	07 17	07 28
Didcot	06 27	06 45	06 58	—	07 18	—	07 45
Reading	06 41	06 59	07 13	07 28	07 33	07 43	08 00
London	07 16	07 32	07 44	08 02	08 07	08 14	08 33

(a) How long should the 06 58 train from Swindon take to get to London?

+1h ↓
06 58.....08 02
07 58

..... 1 hour 4 minutes
(1)

Clare says, "All these trains take more than one hour to get from Swindon to London."

(b) Is Clare correct? You must give a reason for your answer.

07 17 ----- 08 14
+1h ↓
08 17

The 07 17 train takes 57 minutes. Claire is wrong.

(1)
(Total for question = 2 marks)

Q6. CALCULATOR ALLOWED

Here is part of a train timetable from Lostock to Preston.

Lostock	07 46	08 16		08 46	08 57
Horwich	07 50	08 20	08 39	08 50	09 01
Blackrod	07 53			08 53	
Adlington	07 57	08 25		08 57	
Chorley	08 02	08 30	08 47	09 02	09 09
Buckshaw	08 06	08 33		09 05	
Leyland	08 15	08 40		09 12	
Preston	08 20	08 49	08 59	09 17	09 22

(a) How long should the 07 46 train take to go from Lostock to Buckshaw?

0746 ----- 0806

..... 20 minutes
(1)

Ariz wants to go from Horwich to Leyland by train.
He gets to the station at Horwich at 08 30

(b) What is the earliest time he can get to Leyland?

..... 0912
(1)

Mike wants to go from Blackrod to Preston by train.
He needs to get to Preston by 09 25

(c) What is the latest train he can get from Blackrod?

..... 0853
(1)

(Total for question = 3 marks)

Q7. CALCULATOR ALLOWED

Davos is a cleaner.

The table shows information about the time it will take him to clean each of four rooms in a house.

Room	Time
Kitchen	2 hours
Sitting room	1 hour 40 minutes
Bedroom	$1\frac{1}{2}$ hours
Bathroom	45 minutes

Davos wants to clean all four rooms in one day.
 He will have breaks for a total time of 75 minutes. (1h 15)

Davos is going to start cleaning at 9 am.

Will he finish cleaning by 4 pm? You must show all your working.

9am
 ↓ + 2hrs Kitchen
 11am
 ↓ + 1h40 Sitting room
 1240pm
 ↓ + $1\frac{1}{2}$ h Bedroom
 210pm
 ↓ + 45mins Bathroom
 255pm
 ↓ + 1h15mins Breaks.
 410pm

No, he will not finish cleaning at 4pm.
 It will be 410pm.

(Total for question = 3 marks)