Time

Question Paper 1

Level	IGCSE
Subject	Maths (0580)
Exam Board	Cambridge International Examinations (CIE)
Paper Type	Extended
Topic	Number
Sub-Topic	Time
Booklet	Question Paper 1

Time Allowed: 59 minutes

Score: /49

Percentage: /100

Grade Boundaries:

A*	A	B	C	D	E	U
>85%	75%	60%	45%	35%	25%	<25%

1 A train leaves Zurich at 22 40 and arrives in Vienna at 07 32 the next day.
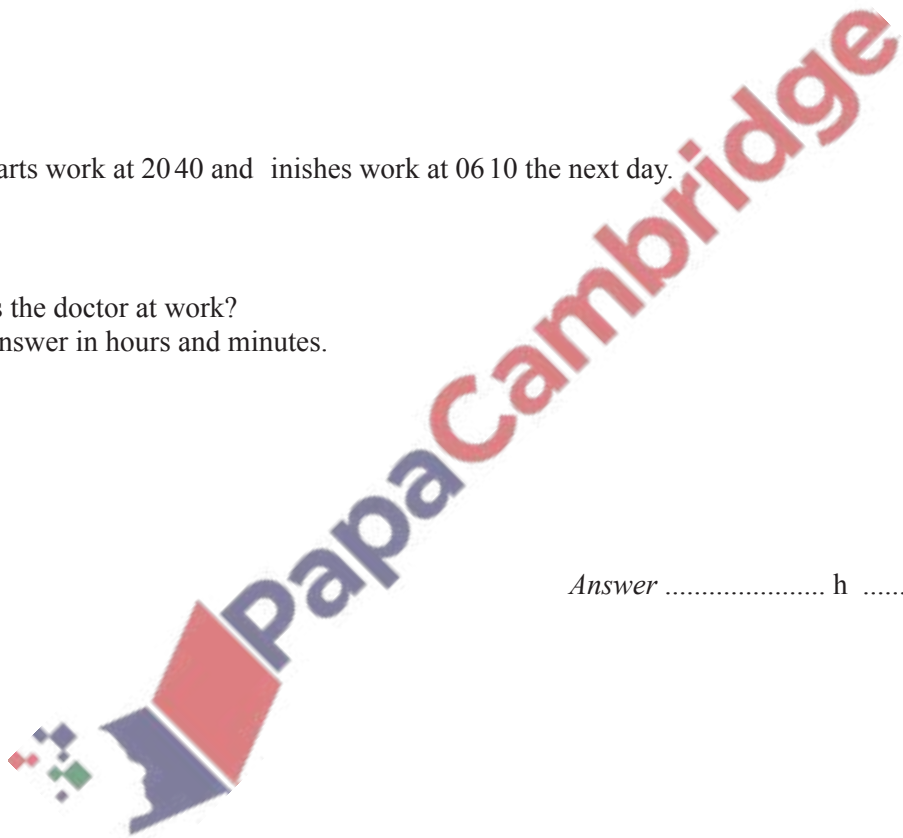
Work out the time taken.

.... h .... min [1]

2 A doctor starts work at 20 40 and inishes work at 06 10 the next day.

How long is the doctor at work?
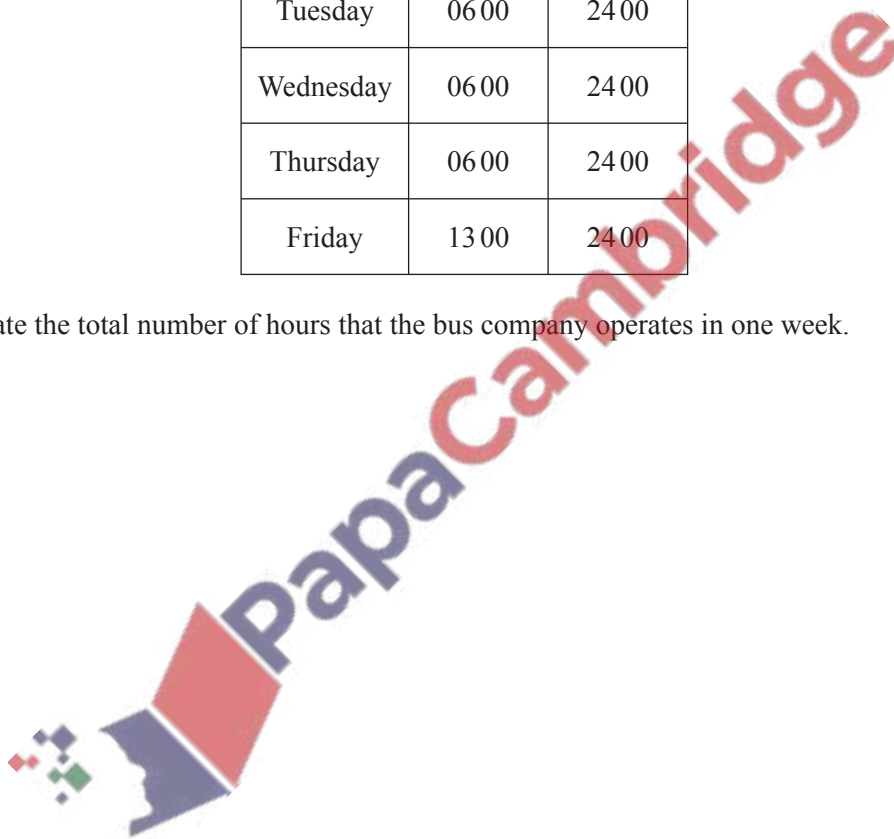Give your answer in hours and minutes.

Answer .... h .... min [1]

3 A bus company in Dubai has the following operating times.

Day	Starting time	Finishing time
Saturday	06 00	24 00
Sunday	06 00	24 00
Monday	06 00	24 00
Tuesday	06 00	24 00
Wednesday	06 00	24 00
Thursday	06 00	24 00
Friday	13 00	24 00

(a) Calculate the total number of hours that the bus company operates in one week.
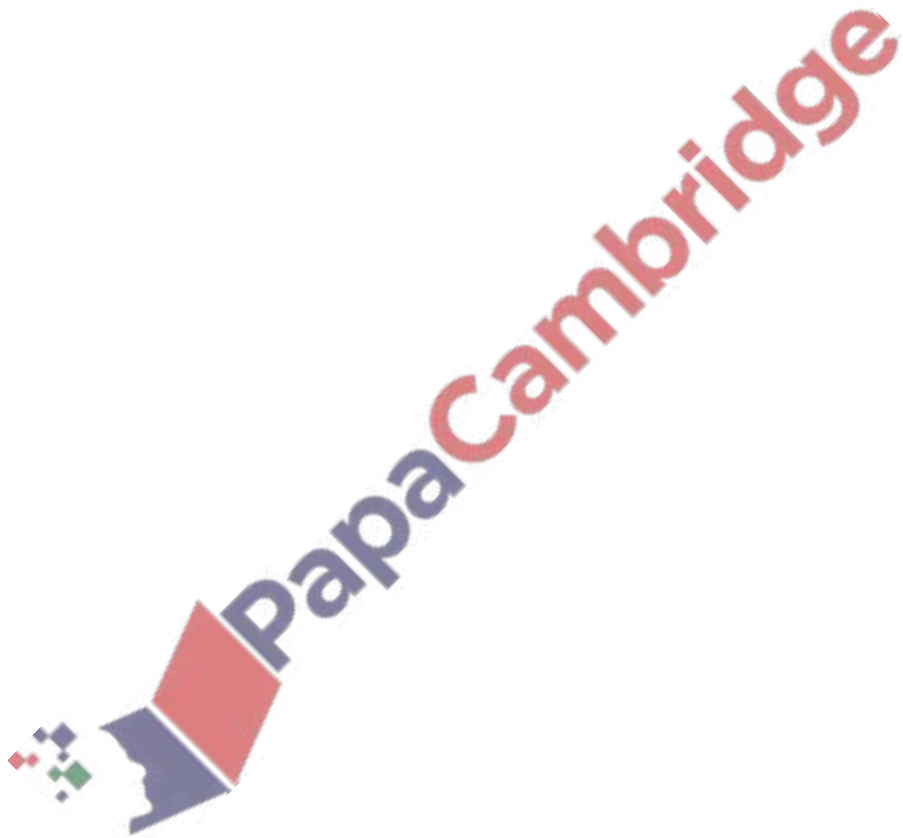
Answer(a) .... h [3]

(b) Write the starting time on Friday in the 12-hour clock.

Answer(b) .... [1]

4   Christa had a music lesson every week for one year.
Each of the 52 lessons lasted for 45 minutes.

Calculate the total time that Christa spent in music lessons.
Give your time in hours.

Answer .... h [2]

5 Noma flies from Johannesburg to Hong Kong.
Her plane leaves Johannesburg at 18 45 and arrives in Hong Kong 13 hours and 25 minutes later.
The local time in Hong Kong is 6 hours ahead of the time in Johannesburg.

(a) At what time does Noma arrive in Hong Kong?

Answer(a) .... [2]

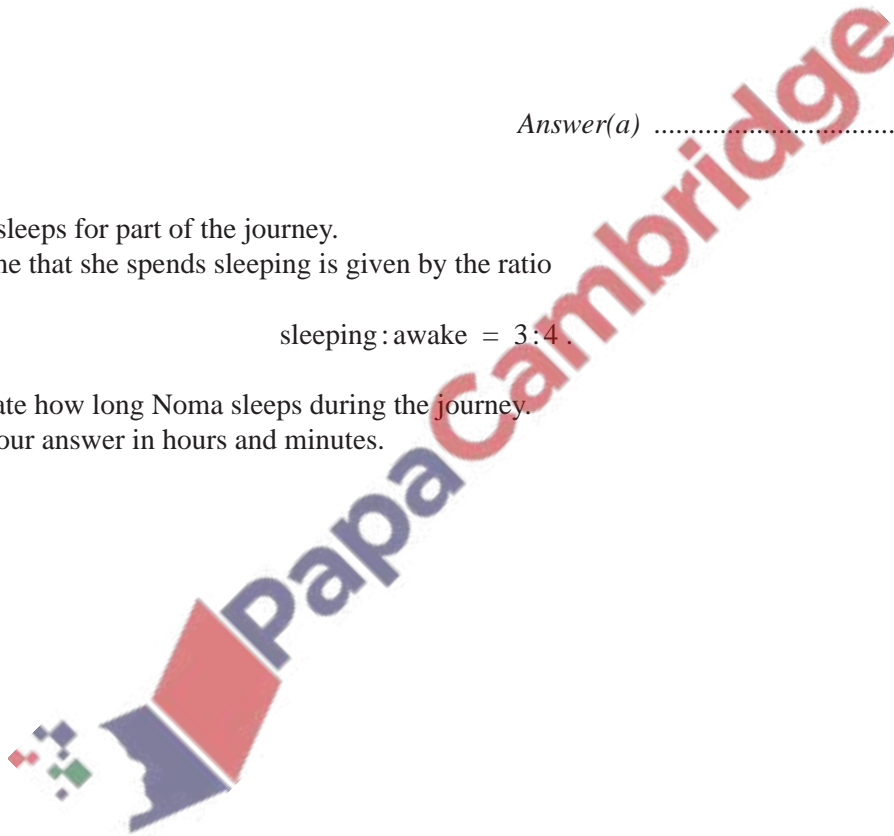**(b)** Noma sleeps for part of the journey.
The time that she spends sleeping is given by the ratio

$$\text{sleeping} : \text{awake} = 3:4 .$$

Calculate how long Noma sleeps during the journey.
Give your answer in hours and minutes.

Answer(b) .... h .... min [2]

(c) (i) The distance from Hong Kong to Johannesburg is 10 712 km.
The time taken for the journey is 13 hours and 25 minutes.

Calculate the average speed of the plane for this journey.

Answer(c)(i) .... km/h [2]

(ii) The plane uses fuel at the rate of 1 litre for every 59 metres travelled.

Calculate the number of litres of fuel used for the journey from Johannesburg to Hong Kong.
Give your answer in standard form.

Answer(c)(ii) .... litres [4]

(d) The cost of Noma's journey is 10 148 South African Rand (R).
This is an increase of 18% on the cost of the journey one year ago.

Calculate the cost of the same journey one year ago.

Answer(d) R .... [3]

6 The time in Lisbon is the same as the time in Funchal.

A plane left Lisbon at 08 30 and arrived in Funchal at 10 20.
It then left Funchal at 12 55 and returned to Lisbon.
The return journey took 15 minutes more.

What time did the plane arrive in Lisbon?

Answer .... [2]

7 A shop is open during the following hours.

	Monday to Friday	Saturday	Sunday
Opening time	06 45	07 30	08 45
Closing time	17 30	17 30	12 00

(a) Write the closing time on Saturday in the 12-hour clock time.
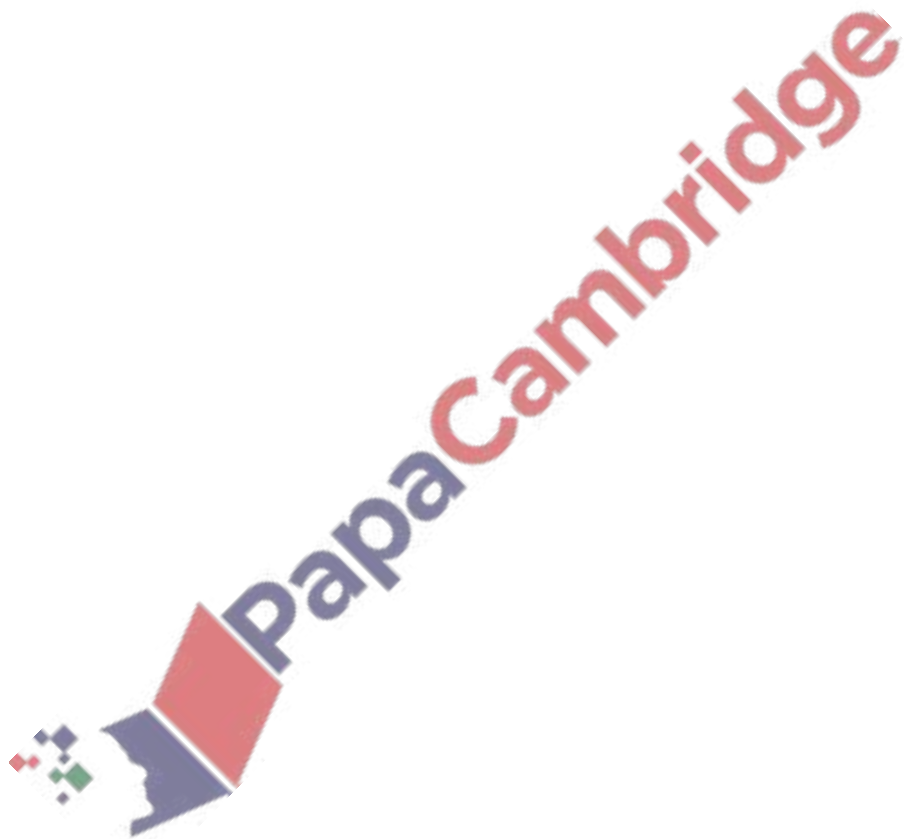
Answer(a) .... [1]

(b) Calculate the total number of hours the shop is open in one week.

Answer(b) .... h [2]

8   The ferry from Helsinki to Travemunde leaves Helsinki at 17 30 on a Tuesday.
     The journey takes 28 hours 45 minutes.

     Work out the day and time that the ferry arrives in Travemunde.

                  Answer   Day .... Time .... [2]

9 **(a** In Portugal, Miguel buys a book about planets.
The book costs €34.95.
In England the same book costs £27.50.
The exchange rate is £1 = €1.17.

Calculate the difference in pounds (£) between the cost of the book in Portugal and England.

Answer(a) £ .... [2]

(b) In the book, the distance between two planets is given as 4.07×10^{12} kilometres.
The speed of light is 1.1×10^9 kilometres per hour.

Calculate the time taken for light to travel from one of these planets to the other.
Give your answer in days and hours.

Answer(b) .... days .... hours [3]

(c) In one of the pictures in the book, a rectangle is drawn.
The rectangle has length 9.3 cm and width 5.6 cm, both correct to one decimal place.

(i) What is the lower bound for the length?

Answer(c)(i) .... cm [1]

(ii) Work out the lower and upper bounds for the area of the rectangle.

Answer(c)(ii) Lower bound = ... cm^2

Upper bound = ... cm^2 [2]

10   A bus leaves a port every 15 minutes, starting at 09 00.
     The last bus leaves at 17 30.

     How many times does a bus leave the port during one day?

Answer .... [2]

11   The table shows the opening and closing times of a café.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Opening time	0600	0600	0600	0600	0600	(*a*)	0800
Closing time	2200	2200	2200	2200	2200	2200	1300

(a) The café is open for a total of 100 hours each week.
     Work out the opening time on Saturday.

Answer(a) .... [2]

(b) The owner decides to close the café at a later time on Sunday. This increases the **total** number
     of hours the café is open by 4%.
     Work out the new closing time on Sunday.
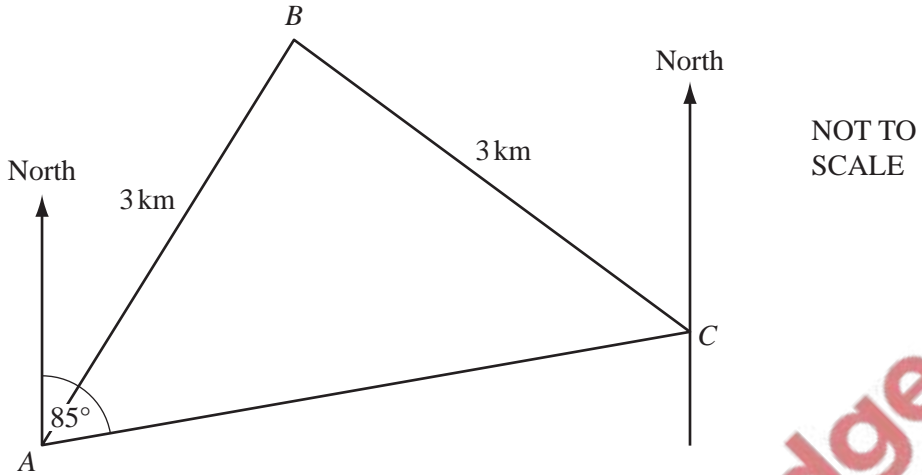
Answer(b) .... [1]

12 A plane took 1 hour and 10 minutes to fly from Riyadh to Jeddah.
The plane arrived in Jeddah at 23 05.
At what time did the plane depart from Riyadh?

Answer .... [1]

13 A cyclist left Melbourne on Wednesday 21 May at 09 45 to travel to Sydney.
The journey took 97 hours.

Write down the day, date and time that the cyclist arrived in Sydney.

Answer Day .... Date .... Time .... [3]

A, *B* and *C* are three places in a desert. Tom leaves *A* at 06 40 and takes 30 minutes to walk directly to *B*, a distance of 3 kilometres. He then takes an hour to walk directly from *B* to *C*, also a distance of 3 kilometres.

(a) At what time did Tom arrive at *C*?

Answer (a) .... [1]

(b) Calculate his average speed for the whole journey.

Answer (b) .... km/h [2]

(c) The bearing of *C* from *A* is 085°.
Find the bearing of *A* from *C*.

Answer (c) .... [1]