C9

Time

CHAPTER ASSIGNMENT · 49 MARKS

Name _____ Class _____ No. _____ Date _____

Answer every question in the space given. Show your working. Write times on the 24-hour clock (for example 13 23) unless a question says otherwise, and give lengths of time in hours and minutes.

Practice questions from *Cambridge IGCSE Mathematics Core and Extended* (4th edition), Chapter 9 (Time), for classroom use. The Check yourself and Chapter quiz questions are Guru Jazzy's own.

Exercise 9.1 · Time, distance and speed

9.1.1 A journey to work takes a woman three quarters of an hour. If she catches the bus at 07 55, when does she arrive? [1]

9.1.2 The same woman catches a bus home each evening. The journey takes 55 minutes. If she catches the bus at 17 50, when does she arrive? [1]

9.1.3 A boy cycles to school each day. His journey takes 70 minutes. When will he arrive if he leaves home at 07 15? [1]

9.1.4 Find the time in hours and minutes for the following journeys of the given distance at the average speed stated: (a) 230 km at 100 km/h · (b) 70 km at 50 km/h [4]

9.1.5 Grand Prix racing cars cover a 120 km race at the following average speeds. How long do the first five cars take to complete the race? Answer in minutes and seconds. [5]

Car	Average speed	Time (minutes and seconds)
First	240 km/h	
Second	220 km/h	
Third	210 km/h	
Fourth	205 km/h	
Fifth	200 km/h	

9.1.6 A train covers the 1500 km distance from Amsterdam to Barcelona at an average speed of 90 km/h. If the train leaves Amsterdam at 9.30 a.m. on Tuesday, when does it arrive in Barcelona? [3]

9.1.7 A plane takes off at 16 25 for the 3200 km journey from Moscow to Athens. If the plane flies at an average speed of 600 km/h, when will it land in Athens? [3]

9.1.8 A plane leaves London for Boston, a distance of 5200 km, at 09 45. The plane travels at an average speed of 800 km/h. If Boston time is five hours behind British time, what is the time in Boston when the aircraft lands? [3]

Student assessment 1

SA1.1 A journey to school takes a girl 25 minutes. What time does she arrive if she leaves home at 08 38? [1]

SA1.2 A car travels 295 km at 50 km/h. How long does the journey take? Give your answer in hours and minutes. [2]

SA1.3 A bus leaves Deltaville at 11 32. It travels at an average speed of 42 km/h. If it arrives in Eastwich at 12 42, what is the distance between the two towns? [3]

SA1.4 A plane leaves Betatown at 17 58 and arrives at Fleckley at 05 03 the following morning. How long does the journey take? Give your answer in hours and minutes. [2]

Student assessment 2

SA2.1 A journey to school takes a boy 22 minutes. What is the latest time he can leave home if he must be at school at 08 40? [1]

SA2.2 A plane travels 270 km at 120 km/h. How long does the journey take? Give your answer in hours and minutes. [2]

SA2.3 A train leaves Alphaville at 13 27. It travels at an average speed of 56 km/h. If it arrives in Eastwich at 16 12, what is the distance between the two towns? [3]

SA2.4 A car leaves Gramton at 16 39. It travels a distance of 315 km and arrives at Halfield at 20 09.

(a) How long does the journey take? [1]

(b) What is the car's average speed? [2]

Check yourself

1. Write 11.40 p.m. and 12.05 a.m. on the 24-hour clock. [2]

2. Explain why 2.5 hours is not the same as 2 hours 50 minutes. [2]

3. A night bus leaves at 23 25 and arrives at 04 10 the next morning. How long is the journey? [2]

4. A runner finishes a 10 km race in 50 minutes. Find her average speed in km/h. [2]

5 A flight leaves Bangkok at 08 20 local time and takes 4 h 50 min to reach Tokyo. Tokyo is 2 hours ahead of Bangkok. What is the local time in Tokyo when it lands? [3]

Chapter quiz

Q1 Write 3.45 p.m. on the 24-hour clock.

A	B	C	D
03 45	15 45	13 45	16 45

Q2 What is 00 20 on the 12-hour clock?

A	B	C	D
12.20 p.m.	0.20 p.m.	12.20 a.m.	10.20 p.m.

Q3 Which 24-hour time is 12.15 p.m.?

A	B	C	D
00 15	24 15	11 15	12 15

Q4 A film starts at 19 40 and lasts 1 h 55 min. When does it end?

A	B	C	D
21 35	20 95	21 25	20 35

Q5 How long is it from 10 47 to 13 20?

A	B	C	D
2 h 73 min	2 h 33 min	3 h 33 min	2 h 27 min

Q6 How long is it from 22 15 to 05 40 the next day?

A	B	C	D
16 h 35 min	6 h 25 min	7 h 25 min	17 h 25 min

Q7 How many minutes are there in 0.6 of an hour?

A	B	C	D
6	60	40	36

Q8 How long does a 210 km journey at 60 km/h take?

A	B	C	D
3 h 30 min	3 h 50 min	2 h 30 min	3 h 5 min

Q9 A cyclist rides for 2 h 15 min at 16 km/h. How far does she go?

A	B	C	D
32 km	34.4 km	36 km	34 km

Q10 A train leaves at 10 10 and arrives at 11 40 after 150 km. What is its average speed?

A	B	C	D
115 km/h	100 km/h	125 km/h	150 km/h

Q11 School starts at 08 30 and the walk takes 25 min. What is the latest time to leave?

A	B	C	D
08 55	07 05	08 15	08 05

Q12 Bangkok is 7 hours ahead of London. It is 15 00 in Bangkok. What time is it in London?

A	B	C	D
08 00	22 00	07 00	09 00

End of assignment · Check your answers against the chapter at gurujazzy.com/subjects/o-level-mathematics/chapter-9-time/