

Time

Quick revision notes [Open it online](#)

Name: _____

Date: _____

At a glance

Clocks, durations, decimal hours, timetables and time zones.

1. 12- and 24-hour clocks
2. Time intervals and decimal hours
3. Timetables and time zones

1. 12- and 24-hour clocks

☐ I revised this

- 24-hour times use four digits: 07 45, 19 45. Midnight is 00 00; noon is 12 00.
- pm → 24-hour: add 12 to the hours (except 12 pm). am times stay the same (12 am = 00 00).
- 24-hour → 12-hour: subtract 12 from hours above 12 and write pm.

12-hour	24-hour
12:30 am	00 30
7:45 am	07 45
12:15 pm	12 15
7:45 pm	19 45
11:59 pm	23 59

Worked example

Write 4:05 pm in the 24-hour clock.

1. pm and after 1 pm → add 12.
2. $4 + 12 = 16$.

16 05

2. Time intervals and decimal hours

☐ I revised this

- Count up on a time line: to the next whole hour, then whole hours, then the minutes left.
- Never subtract times like decimals: $21\ 15 - 18\ 50$ is not 2.65.
- Decimal hours → minutes: multiply the decimal part by 60. $2.35\ \text{h} = 2\ \text{h}\ 21\ \text{min}$.
- Minutes → decimal hours: divide by 60. $45\ \text{min} = 0.75\ \text{h}$; $48\ \text{min} = 0.8\ \text{h}$.

Time line method

1. From the start time, count to the next o'clock.
2. Count the whole hours.
3. Add the minutes at the end.
4. Add the pieces together.

Worked example

A bus leaves at 22 40 and arrives at 03 15 the next day. How long is the journey?

1. $22\ 40 \rightarrow 23\ 00$: 20 min.
2. $23\ 00 \rightarrow 03\ 00$: 4 h.
3. $03\ 00 \rightarrow 03\ 15$: 15 min.

4 h 35 min

3. Timetables and time zones

☐ I revised this

- Read a timetable along the row for the stop and down the column for one bus or train.
- Arrival = departure + journey time.
- A place that is **ahead** is later there: add the difference. Behind: subtract.
- Flight problems: work in one time zone first, then convert at the end.

Worked example

Karachi is 5 h ahead of London. A flight leaves London at 22 00 (London time) and takes 8 h. What is the local time in Karachi on landing?

1. Landing in London time: $22\ 00 + 8\ \text{h} = 06\ 00$.
2. Karachi is 5 h ahead: $06\ 00 + 5\ \text{h}$.

11 00 (next day)

Exam tip: Watch for journeys that cross midnight — the date changes too.

Common mistakes

Don't write	Write instead
✗ $2.35\ \text{h} = 2\ \text{h}\ 35\ \text{min}$	✓ $0.35 \times 60 = 21\ \text{min} \rightarrow 2\ \text{h}\ 21\ \text{min}$
✗ $21\ 15 - 18\ 50 = 2\ \text{h}\ 65\ \text{min}$	✓ Count up: $2\ \text{h}\ 25\ \text{min}$
✗ $12:30\ \text{am} = 12\ 30$	✓ $12:30\ \text{am}$ is just after midnight: $00\ 30$
✗ Using 100 minutes in an hour	✓ There are 60

In the exam

- Show your time line — it earns marks even if you slip in adding.
- Change minutes to hours ($\div 60$) before using them in a speed formula.
- Give answers in the form asked: 24-hour clock, hours and minutes, or just minutes.

My notes

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