PRINTABLE DEDUCTION FOR TWO

The Last Timetable

A railway connection puzzle for two people with different timetables.



The last delivery must reach the observatory before its doors close. One of you has the station ledger; the other has the operating orders. Compare information aloud to arrange a connection, reconcile three clocks, and restore the final departure board.

2 PLAYERS / ONE COMPLETE FREE CASE / ENGLISH PDF

Before you start

Give the next page only to Player A and the page after it only to Player B. Do not show sheets; speaking and shared notes are allowed. Read hints together only when needed. The final page contains the answer. One fixed-answer case; no timer or other purchase required.

CASE 01 / PRIVATE A / Dispatcher

The observatory connection

> **Your joint task**
> Choose one feeder train and one onward shuttle. Give both train IDs and the time you reach the observatory. No other travel is permitted.

These are all feeder trains from the depot to the junction. Journey minutes are exact, and every train runs on time. Platform is the arrival platform at the junction.

Train	Depot departure	Journey	Platform
R1	14:02	8 minutes	1
R2	14:05	6 minutes	2
R3	14:08	5 minutes	1
R4	14:10	7 minutes	3
R5	14:12	3 minutes	2
R6	14:06	10 minutes	3

1. The operating orders are on your partner's sheet. Calculate each arrival before discussing a connection.

JOINT ANSWER / AGREE BEFORE CHECKING

CASE 01 / PRIVATE B / Signalkeeper

The observatory connection

> **Your joint task**
> Choose one feeder train and one onward shuttle. Give both train IDs and the time you reach the observatory. No other travel is permitted.

These are all onward shuttles from the junction to the observatory. The platform is the shuttle departure platform.

Shuttle	Departure	Arrival	Platform
S1	14:15	14:24	2
S2	14:20	14:28	3

1. The delivery cannot leave the depot before 14:04.
2. The observatory must be reached by 14:25, inclusive.
3. Changing between different platforms takes at least 5 minutes. Remaining on the same platform still requires at least 2 minutes.
4. A connection is allowed when the minimum transfer finishes exactly at departure. You may wait longer.

JOINT ANSWER / AGREE BEFORE CHECKING

OPTIONAL HELP / SPOILERS

Hints, one at a time.

Fold this page or cover later hints with scrap paper. Both players should agree before reading a hint.

01 / The observatory connection

Hint 1. First eliminate a shuttle using the observatory deadline.

Hint 2. Subtract the required transfer from S1 departure: same-platform arrivals must be no later than 14:13; other platforms no later than 14:10.

Original puzzle text and deterministic solution checks were prepared with AI assistance. Cover illustration: Gemini. Layout direction: Google Stitch, implemented and checked by Codex. No independent human playtesting or native-language review is claimed. Personal-use print and partner sharing permitted; no resale or public redistribution.

SOLUTION 01 / OPEN AFTER PLAY

The observatory connection

R2 -> S1; observatory arrival 14:24.

S2 arrives too late. R1 reaches the junction at 14:10 on platform 1 and could change platforms in time, but leaves the depot before 14:04. R2 arrives 14:11 on platform 2 and completes its two-minute transfer at 14:13. R3 arrives 14:13 on platform 1 and needs until 14:18. R4 and R6 arrive on platform 3 at 14:17 and 14:16. R5 arrives on platform 2 at 14:15 and misses the two-minute minimum. Only R2 connects to S1.

That is the complete first case.

The complete edition adds two different cases, private role pages, hints and explained answers. This sample does not require a purchase.

Find Pattern Lab at yaotao3000.itch.io. The complete edition is English only, with A4 and US Letter versions of the same three cases.