AUTHORIZED

MISSION BRIEFING

O P E R A T I O N : Z E T A R E C O V E R Y

1. SITUATION REPORT

Orbital Station Zeta has suffered a critical catastrophic failure. All primary systems—Navigation, Oxygen, and Power—are offline. The onboard AI has locked the controls behind an encryption protocol based on **EQUIVALENT FRACTIONS**.

2. YOUR MISSION

You are the acting Systems Specialist. You must manually bypass the security protocols to restore the station's functions before life support fails completely.

3. INSTRUCTIONS

1. Review the **CLUE SHEETS** in this dossier.
2. Solve each math problem to reveal a numeric or text **ACCESS CODE**.
3. Enter the codes into the TERMINAL at:

logiclabseducation.github.io/escape-01/

FAILURE IS NOT AN OPTION.

GOOD LUCK, SPECIALIST.

PROJECT: ZETA RECOVERY

DECLASSIFIED

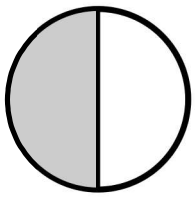
SUBJECT: EQUIVALENT FRACTIONS REF: FUEL-CELLS-01

SECTION 1: THE FUEL CELLS (VISUAL MATCHING)

"Cadet, we need to refuel the auxiliary engines. Match the visual fuel levels to the correct frequency."

PROBLEM 1: MAIN TANK

OBSERVATION: A circular tank is divided into **2 parts**. **1 part** is filled (shaded).



Find the matching frequency on your keypad:

- 2/4
- 2/6
- 1/3

ENTER CODE: INPUT CODE

PROBLEM 2: RESERVE TANK

OBSERVATION: A rectangular cell is divided into **3 parts**. **2 parts** are filled.

Identify the reserve tank capacity:

- 4/6
- 3/6
- 2/4

ENTER CODE: INPUT CODE

PROJECT: ZETA RECOVERY

EYES ONLY

SUBJECT: EQUIVALENT FRACTIONS REF: NAV-DATA-02

SECTION 2: NAVIGATION DATA (THE "BIG 1" RULE)

"We are drifting off course. Recalibrate the signal by multiplying the numerator and denominator by the same number."

PROBLEM 3: SIGNAL AMPLIFICATION

To reach Earth, we must amplify signal **2/5** by a factor of **3**.

$$(2 \times 3) / (5 \times 3) = ?$$

ENTER CODE (Result):

INPUT CODE

PROBLEM 4: ANTENNA RATIO

The antenna requires a **3/4** ratio. The base is set to **12**.

Determine the required signal strength (x).

$$3/4 = x/12$$

ENTER CODE (x):

INPUT CODE

PROJECT: ZETA RECOVERY

URGENT

SUBJECT: EQUIVALENT FRACTIONS REF: LIFE-SUPPORT-03

SECTION 3: LIFE SUPPORT (SIMPLIFYING)

"CO2 levels rising. You must simplify the system output to maximum efficiency immediately."

PROBLEM 5: OXYGEN SCRUBBERS

Oxygen scrubbers are running at **10/20** efficiency.

MISSION: Simplify to restart.

ENTER CODE: INPUT CODE

PROBLEM 6: CARBON VENTING

Carbon levels are at **8/12**.

MISSION: Reduce to simplest terms to vent the air.

ENTER CODE: INPUT CODE

PROJECT: ZETA RECOVERY

APPROVED

SUBJECT: EQUIVALENT FRACTIONS REF: ORBITAL-04

SECTION 4: ORBITAL MECHANICS (NUMBER LINES)

"Plotting trajectory home. Ensure all coordinates align on the linear scale."

PROBLEM 7: TRAJECTORY CHECK

The orbital map shows Point A at **1/3**.

Is Point B at **2/6** the same distance?

ENTER CODE (YES/NO): INPUT CODE

PROBLEM 8: ANOMALY DETECTION

Which of these coordinates is NOT a match for **1/4**?

[A] 2/8

[B] 3/12

[C] 4/10

ENTER CODE (A, B, or C): INPUT CODE

PROJECT: ZETA RECOVERY

CLASSIFIED

SUBJECT: EQUIVALENT FRACTIONS REF: WARP-DRIVE-05

SECTION 5: THE WARP DRIVE (CHALLENGE)

"Final checks before warp jump. Calculations must be precise."

PROBLEM 9: POWER CONSUMPTION

The Captain used **4/8** of the battery.

The Pilot used **1/2** of the battery.

Did they use the same amount?

ENTER CODE (YES/NO): INPUT CODE

PROBLEM 10: CORE STABILITY

The core requires **2/10** stability.

On a 100-point scale dashboard, what is the target integer?

$$2/10 = x/100$$

ENTER FINAL CODE: INPUT CODE