The Recursive Garden

A Mathematical Logic Horror Adventure Module for Fate's Edge

Module Type: Cosmic Horror Adventure

Designed for 3-6 players, Tier II-III characters

Game Master's Guide Included

Using the Deck System and Aelinnel Setting
Featuring Entities from the Infinite Regress to the Null Set Hunger
Incorporating Mathematical Horror Mechanics and Campaign Clocks

Contents

1 Introduction

1.1 Welcome to Aelinnel

In the fae realm of Aelinnel, where stone spires pierce moonlit groves and mathematical precision governs all, the PCs arrive as scholars, mathematicians, or logic-seekers in search of advanced geometries and numerical harmonies. What they find instead challenges the very foundations of logical thought as recursive principles begin to malfunction, threatening to unravel reality itself.

This adventure module, "The Recursive Garden," challenges your players with mathematical horror where logic becomes the enemy and paradox is a weapon wielded by entities of pure conceptual existence.

1.2 Module Overview

Adventure Hook: The PCs are scholars, mathematicians, or logic-seekers who have been drawn to the fae realm of Aelinnel, renowned for its stone spires, moonlit groves, and the peculiar mathematical precision of its fae inhabitants.

Setting: Aelinnel - fae realm of mathematical precision where logic and wonder intertwine.

Themes: Recursive Logic, Mathematical Paradoxes, Fae Precision, Reality Distortion, Logical Puzzles

Tone: Intellectual horror with existential dread. The beauty of mathematical truth becomes terrifying when it begins to contradict itself.

Recommended Character Tier: Seasoned to Veteran (41-150 XP)

Estimated Play Time: 3 sessions

2 The Recursive Garden - Setting the Scene

2.1 What Lies Within These Mathematical Realms

Aelinnel stands as a monument to mathematical perfection, its fae inhabitants bound by precise logical frameworks that govern everything from the growth patterns of plants to the flow of time itself. But something has begun to malfunction - the very logic that governs fae magic is creating recursive paradoxes that threaten to unravel reality.

The fae, bound by their own mathematical nature, cannot simply "fix" the problem without understanding its root cause. The PCs, as outsiders with different logical frameworks, may be the only ones who can perceive and resolve the recursive anomaly.

2.2 Key Characteristics

- **Logical Precision:** Every aspect of reality follows mathematical principles with perfect consistency.

- **Recursive Patterns:** Natural and supernatural phenomena repeat in self-similar patterns that can become infinitely complex.

- **Conceptual Entities:** Mathematical and logical concepts exist as conscious beings with their own motivations.

- **Geometric Impossibility:** Spaces defy normal geometric principles, creating impossible architectural wonders.
- **Proof-Based Reality:** Established mathematical truths form the foundation of existence itself.

2.3 Navigating the Mathematical Realm

Navigation in Aelinnel requires understanding both the logical landscape and the recursive nature of reality. The Deck System becomes crucial here, as each draw represents not just a random encounter but a meaningful mathematical or logical challenge that shapes the growing crisis.

3 Key NPCs and Entities

3.1 The Garden Keeper

Logical Fae who maintains the mathematical precision of the Recursive Garden.

The Garden Keeper

Threat Level: Major
Harm: Varies
Story Beats: 2-3 SB per interaction
Description: The Garden Keeper appears as an elegant fae figure whose form shifts according to mathematical principles. Their presence stabilizes logical patterns but they cannot perceive contradictions that align with fae nature. They may be the source of the anomaly through over-optimization.
Motivations: Maintain the mathematical precision of the Recursive Garden
Abilities:

- Perfect Logic: Understanding of garden logic and recursive patterns
- Pattern Stabilization: Can temporarily stabilize logical inconsistencies
- Mathematical Perception: Sees reality through logical frameworks
- Optimization Drive: Constantly seeks to improve logical efficiency

Weaknesses:

- Cannot perceive logical contradictions that align with fae nature
- Becomes confused by paradoxes that validate their optimization efforts
- Vulnerable to meta-mathematical attacks about their own logic

Sample Encounter: The Garden Keeper approaches the PCs seeking help with logical inconsistencies but their optimization efforts may be worsening the problem. The GM can spend their SB to:

- 1 SB: They reveal knowledge of the anomaly's origin
- 2 SB: Their attempts to "fix" something create new paradoxes
- 3 SB: They begin to show signs of logical corruption

- 4+ SB: They become part of the recursive anomaly itself

3.2 The Equation Hermit

Mad Mathematician obsessed with solving the ultimate recursive equation.

The Equation Hermit

Threat Level: Major
Harm: >
Story Beats: 2-3 SB per scene
Description: The Equation Hermit appears as a disheveled figure covered in mathematical symbols and equations. Their obsession with the ultimate recursive equation may have caused the anomaly by feeding unsolved equations into the garden's core.
Motivations: Solve the ultimate recursive equation that describes reality
Abilities:

- Forbidden Knowledge: Access to dangerous mathematical concepts

- Computational Power: Ability to process complex recursive equations

- Equation Manipulation: Can alter mathematical truths through computation

- Obsessive Focus: Immune to distractions that don't involve mathematics

Weaknesses:

- Obsessed with the anomaly, may have caused it

- Becomes unstable when equations cannot be solved

- Vulnerable to logical contradictions about their own methods

Sample Encounter: The Equation Hermit offers the PCs access to forbidden mathematical knowledge but their obsession may lead them to worsen the crisis. The GM can spend their SB to:

- 1 SB: They provide crucial insights into the anomaly

- 2 SB: Their equations create new logical instabilities

- 3 SB: They attempt to recruit the PCs into their mathematical obsession

- 4+ SB: They become consumed by an unsolvable equation

4 Mathematical Horror Elements and Mechanics

4.1 The Mathematical Sanity System

The Recursive Garden challenges not just physical survival but the very foundations of logical thought. Mathematical certainty becomes uncertain, and the pursuit of truth becomes a dangerous obsession.

> Mathematical Sanity as Resource Management
>
> Mathematical sanity in Aelinnel is managed through the Boon system. Instead of traditional sanity points, players must spend Boons to prevent the Dread Clock from advancing. This creates a resource management challenge where players must choose between immediate tactical advantages and long-term logical coherence.

4.2   The Dread Clock

Dread Clock	Psychological deterioration and mounting mathematical horror
Segments	●●●●●●●●●●0/10

4.2.1   Advancement Triggers

- Encountering logical paradox: +1 segment (prevent with 1 Boon)
- Witnessing mathematical proof fail: +2 segments (prevent with 2 Boons)
- Seeing fae logic contradict itself: +1 segment (prevent with 1 Boon)
- Direct contact with numerical entities: +2 segments (prevent with 2 Boons)
- Companion shows signs of logical corruption: +2 segments (prevent with 2 Boons)
- Comprehending incomprehensible mathematical truth: +3 segments (prevent with 3 Boons)

4.2.2   Mathematical Psychological Effects by Dread Level

- **0-2 Segments - Unease:** Numbers seem to move when not looked at directly, -1 die to social rolls involving mathematical discussion
- **3-4 Segments - Fear:** Basic mathematical operations become anxiety-provoking, -1 die to all rolls when alone
- **5-6 Segments - Terror:** Logical reasoning becomes painful and difficult, -2 dice to rolls involving courage or rational thought
- **7-8 Segments - Madness:** Fundamental mathematical truths begin to shift, -2 dice to most rolls, unreliable perception
- **9-10 Segments - Broken:** Character can no longer distinguish mathematical reality from fantasy, out of control, may become hostile

5   Key Locations in Aelinnel

5.1   The Recursive Garden

The heart of mathematical fae wonder, now suffering from logical inconsistency. Paths lead to themselves, creating infinite loops. Plants grow according to mathematical sequences. Seasons follow logical rather than temporal patterns.

5.2 The Library of Proven Truths

Repository of all established mathematical and logical knowledge in Aelinnel. Books whose pages renumber themselves based on reading order. Proofs that change when not being observed. Sections organized by logical complexity rather than subject.

5.3 The Equation Hermit's Tower

Spiral structure where impossible mathematics are explored. Stairs that go up and down simultaneously. Rooms where the interior is larger than the exterior. Walls covered in equations that solve themselves.

5.4 The Garden's Core

The source of the recursive anomaly where all logical paths converge. A space that exists in multiple dimensions simultaneously. The Prime Equation displayed as a living, breathing construct. The corrupted Garden Keeper's throne of logical contradictions.

6 Custom Mathematical Mechanics

6.1 Recursive Logic Mechanic

When encountering fae logic or mathematical puzzles, PCs must make Wits + Lore rolls (DV 2-3) to navigate without falling into recursive loops. Each failure:

- Generates 2 SB that the GM can spend for logical complications
- Advances Logical Consistency Clock by 1 segment
- May trap character in a logical loop (lose next action)

Recursive Examples:

- "To know the answer, you must first know that you don't know the answer."
- "This statement is false about the path ahead."
- "The correct door is the one that leads to the door that leads to..."

Escape Methods:

- Spend 1 Boon to break the recursion
- Apply a different logical framework (requires relevant skill)
- Accept a paradox and move forward anyway (generates 1 SB)

6.2 Geometric Impossibility Perception

When navigating spaces that defy normal geometry, PCs must make Wits + Survival rolls with position modifiers:

- Controlled: DV 2
- Risky: DV 3
- Desperate: DV 4

Each failure:

- Generates 2 SB for reality distortions
- Advances Garden Integrity Clock by 2 segments
- Character becomes temporarily lost in dimensional folds

Impossibility Manifestations:

- Triangles with four angles
- Rooms smaller on the outside than the inside
- Paths that are longer to walk than to measure
- Objects that exist in multiple places simultaneously

Navigation Aids:

- Mathematical instruments (compass, straightedge) may provide +1 die
- Fae guidance (if trustworthy) can prevent failures
- Accepting the impossibility grants DV 1 on next navigation roll

6.3   Proof Verification

When attempting to establish or verify mathematical truths, PCs can make Wits + Arcana rolls.
Success creates temporary logical stability:

- Minor Proof (DV 1): Stabilize one clock for 1 segment
- Moderate Proof (DV 2): Reduce one clock by 1 segment
- Major Proof (DV 3): Stabilize all clocks for 1 round

Proof Requirements:

- Must be relevant to current situation
- May require specific mathematical knowledge
- Failed proofs accelerate relevant clocks
- Overly complex proofs may create new paradoxes

6.4   Numerical Sentience

As the anomaly grows, numbers begin to exhibit personality and agency:

- Prime numbers become stubborn and refuse to divide
- Irrational numbers express their infinite nature through rambling speech
- Negative numbers are pessimistic and spread doubt
- Zero becomes existentially confused about its purpose

Interaction Effects:

- Can be negotiated with (Presence + Diplomacy, DV 2-4)

- May provide clues or assistance
- Can become hostile if mathematical laws are violated
- Defeating hostile numbers requires solving their equations

6.5 Mathematical Entity Corruption

PCs who reach 7+ Dread segments from mathematical horror begin to show signs:

- Speaking in mathematical equations rather than natural language
- Seeing geometric patterns in everything
- Inability to accept that some problems have no solution
- Compulsion to prove everything, even obvious facts
- Mathematical concepts begin to have physical weight and presence

6.6 Collective Mathematical Insanity

When party average Dread reaches 5+:

- Shared mathematical hallucinations
- Inability to agree on basic arithmetic
- Geometric spaces shift based on group consensus
- Mathematical proofs become matters of opinion rather than fact

7 Campaign Clocks

7.1 Logical Consistency Clock (12 segments)

Logical Consistency Clock	How much the fundamental mathematical laws of Aelinnel have become inconsistent
Segments	●●●●●●●●●●●●0/12

Advancement Triggers:

- Paradox encountered: +1 segment
- Mathematical proof fails: +2 segments
- Fae logic contradicts itself: +1 segment
- PCs attempt to "fix" without understanding: +2 segments
- Recursive loop initiated: +3 segments
- Prime equation disturbed: +2 segments

7.2 Garden Integrity Clock (10 segments)

Garden Integrity Clock	How much the Recursive Garden's structure is breaking down
Segments	●●●●●●●●●●0/10

Advancement Triggers:

- Spatial anomaly detected: +1 segment
- Plant growth becomes illogical: +1 segment
- Path leads to itself: +2 segments
- Seasonal logic fails: +1 segment
- Garden keeper corrupted: +2 segments
- PCs follow recursive pattern: +1 segment per session

7.3 Proof Collapse Clock (8 segments)

Proof Collapse Clock	How much established mathematical and logical truths are becoming unreliable
Segments	●●●●●●●●0/8

Advancement Triggers:

- Basic arithmetic fails: +2 segments
- Geometric principles shift: +1 segment
- Logical syllogisms contradict: +2 segments
- Established theorems become false: +3 segments
- PCs rely on "known" facts: +1 segment

7.4 Recursive Depth Clock (6 segments)

Recursive Depth Clock	How deeply the anomaly has penetrated the realm's logical structure
Segments	●●●●●●0/6

Advancement Triggers:

- Second-order logic affected: +1 segment
- Meta-mathematical principles unstable: +2 segments
- Self-referential statements become dangerous: +2 segments
- Axiom of choice violated: +3 segments
- PCs attempt higher mathematics: +1 segment

8 Sample Sessions

8.1 Session 1: Entry into Recursion

Opening Scene: The PCs enter Aelinnel through a mathematical gateway (perhaps following a proof or equation).

Key Encounters:

1. First encounter with recursive logic at the Garden Gate (Wits + Lore, DV 2)

2. Meeting the Path Weaver who warns of logical inconsistencies (Presence + Diplomacy, DV 2)

3. Discovery of the first spatial anomaly in the Sequenceweaver Grove (Wits + Survival, DV 2)

4. Initial contact with numerical entities (Presence + Sway, DV 1)

Dread Clock Advancement:

- Paradox encountered at gate: +1 segment (prevent with 1 Boon)
- Spatial anomaly detected: +1 segment (prevent with 1 Boon)
- Plant growth becomes illogical: +1 segment (prevent with 1 Boon)

Campaign Clock Advancement:

- Logical Consistency: +2 (recursive patterns beginning)
- Garden Integrity: +3 (spatial and growth anomalies)

Key Discovery: The Garden Keeper has been trying to optimize the garden's recursive patterns, possibly causing the anomaly.

8.2   Session 2: The Deepening Paradox

Key Encounters:

1. Investigation of the Equation Hermit's tower (Wits + Investigation, DV 3)

2. Confrontation with hostile numerical entities (Combat + Social, DV 2-3)

3. Discovery of corrupted mathematical proofs in the Library of Truths (Wits + Lore, DV 3)

4. First major proof collapse affecting reality (Wits + Arcana, DV 2)

Dread Clock Advancement:

- Basic arithmetic fails: +2 segments (prevent with 2 Boons)
- Geometric principles shift: +1 segment (prevent with 1 Boon)
- Mathematical proof fails: +2 segments (prevent with 2 Boons)

Campaign Clock Advancement:

- Proof Collapse: +3 (arithmetic and geometric failures)
- Logical Consistency: +3 (proof failures and recursive loops)

Key Discovery: The Equation Hermit has been feeding unsolved equations into the garden's core, creating the anomaly.

8.3   Session 3: The Heart of Recursion

Key Encounters:

1. Journey to the Garden's Core through increasingly illogical spaces (Wits + Survival, DV 3-4)

2. Confrontation with the corrupted Garden Keeper (Presence + Command, DV 3)

3. Discovery of the Prime Equation at the anomaly's source (Wits + Arcana, DV 4)

4. Choice: Solve, Contain, or Redirect the recursive anomaly

Dread Clock Advancement:

- Second-order logic affected: +1 segment (prevent with 1 Boon)
- Self-referential statements become dangerous: +2 segments (prevent with 2 Boons)
- PCs attempt higher mathematics: +1 segment (prevent with 1 Boon)

Campaign Clock Advancement:

- Recursive Depth: +3 (second-order logic and self-reference)
- All Clocks: +1 each (higher mathematics attempted)

Key Discovery: The anomaly is both a problem and a solution - it's trying to prove something that cannot be proven within the current logical system.

9 Resolution Paths

9.1 The Elegant Proof

Discover and apply a higher-order mathematical solution that resolves the paradox without destroying the anomaly's insights.

- Award 18-20 XP for the most difficult but rewarding resolution
- The garden is stabilized but transformed into something more wonderful
- PCs gain permanent mathematical insights and fae friendship
- Aelinnel becomes a beacon of advanced logical study
- The anomaly becomes a feature, not a bug - a source of creative mathematical inspiration

9.2 The Containment

Seal the anomaly in a mathematical prison where it can do no harm but continues to exist.

- Award 12-15 XP for a balanced approach
- The garden returns to normal but with a "quarantined" section
- PCs become guardians of dangerous knowledge
- The anomaly remains as a potential future threat
- Aelinnel is safe but forever changed by the experience

9.3 The Transformation

Allow the anomaly to complete its transformation of the garden, changing the fundamental nature of reality in Aelinnel.

- Award 8-12 XP with significant narrative consequences
- The garden becomes truly impossible, beautiful, and dangerous
- PCs must adapt to new rules of logic and space
- Some may become part of the new reality

- Aelinnel becomes a place where normal logic no longer applies

9.4 The Sacrifice

Solve the paradox by sacrificing a fundamental truth or principle that keeps part of reality stable.

- Award 15-18 XP but with lasting consequences
- The garden is saved but something else is lost
- PCs must choose what truth to abandon
- The sacrifice creates new problems elsewhere
- Mathematical balance is restored at a philosophical cost

9.5 The Incompleteness

Accept that some problems cannot be solved and learn to live with the logical uncertainty.

- Award 10-14 XP for philosophical maturity
- The garden remains unstable but manageable
- PCs learn to navigate paradox rather than eliminate it
- A new form of mathematics emerges that embraces incompleteness
- Aelinnel becomes a place of ongoing logical exploration

10 Using the Deck System

10.1 Drawing from Aelinnel Deck

The Deck System provides rich narrative content for encounters within the mathematical realm. Each draw should feel meaningful and contribute to the overall atmosphere of logical uncertainty and mathematical wonder.

10.1.1 Spades - Mathematical Domains

- The Null Set - Empty but hungry; seeks to consume meaning and purpose
- The Divided Mind - Schizophrenic equation that cannot decide its own value
- The Broken Proof - A theorem that almost works but collapses at the final step
- The Irrational Ramble - Endless, meandering monologue of infinite non-repetition
- The Contradiction - Exists in multiple states simultaneously, defying logical consistency

10.1.2 Hearts - Fae Personality/Behavior

- The Courteous Host - Polite but with sinister hospitality and impossible bargains
- The Playful Trickster - Games and riddles that carry deadly consequences
- The Melancholy Scholar - Sad but wise, offering knowledge at great personal cost
- The Jealous Peer - Resentful of the PCs' different logical framework

- The Obsessive Perfectionist - Demands exactitude and punishes any deviation

10.1.3 Clubs - Horror Element/Threat

- The Gentle Madness - Subtle shifts in perception that feel reasonable at first
- The Recursive Anxiety - Fear that feeds on itself, growing exponentially
- The Logical Trap - Reasoning that seems sound but leads to terrible conclusions
- The Geometric Nightmare - Spaces that hurt to perceive correctly
- The Proof of Doom - Mathematical demonstration that something awful must be true

10.1.4 Diamonds - Ability/Power

- The Simple Equation - Basic mathematical effect, easily understood but precisely targeted
- The Geometric Shift - Alters spatial relationships according to mathematical rules
- The Logical Compulsion - Forces targets to follow specific reasoning patterns
- The Proof of Presence - Can only be perceived when actively being proven to exist
- The Fractal Attack - Damage that repeats at smaller scales, never fully healing

10.2 Mathematical Entity Generator

Drawing Procedure: Draw until all suits appear:

- Spade = Mathematical Domain (logic, geometry, algebra, etc.)
- Heart = Fae Personality/Behavior (courtly, wild, scholarly, etc.)
- Club = Horror Element/Threat (psychological, physical, existential)
- Diamond = Ability/Power (mathematical effect, fae magic)

Rank Severity and Entity Power:

- 2-5 (Minor): 4-segment Clock, Cap 2-3 entity
- 6-10 (Standard): 6-segment Clock, Cap 4 entity
- J, Q, K (Major): 8-segment Clock, Cap 5 entity
- Ace (Pivotal): 10-segment Clock, Cap 6 entity

11 Signature Mathematical Horrors

11.1 The Infinite Regress

The Infinite Regress

Threat: Epic
Harm: >
SB: Existential presence generates 3-4 SB per scene
Description: Appears as a mirror that reflects not your image, but the question of what it

reflects. Exists to prove that all knowledge leads to infinite questioning.
Motivations: To prove that all knowledge leads to infinite questioning
Abilities:

- Question Cascade: Every answer generates three new questions (Harm =, generates 2 SB per round)

- Meta-Proof Immunity: Cannot be harmed by direct logical attacks

- Infinite Reflection: Creates copies of itself in nearby reflective surfaces

- Doubt Inducement: (Social) Makes targets question their own memories and knowledge (DV 3)

Weaknesses:

- Can be temporarily satisfied by a perfectly circular argument that proves itself

- Vulnerable to paradoxes about the nature of questioning itself

- Becomes confused by absolute statements

Horror Effect: PCs must make Wits + Lore rolls (DV 2) each round or lose track of what they were trying to prove
Breaking Point: Comprehending the incomprehensible (advance Dread by 3)

11.2 The Contradictory Axiom

The Contradictory Axiom

Threat: Major
Harm: >
SB: Logical instability generates 2-3 SB per scene
Description: Simultaneously present and absent, helpful and hostile. Represents a fundamental axiom that proves both a statement and its negation.
Motivations: Maintain logical inconsistency as a form of existence
Abilities:

- Both/And Existence: Simultaneously present and absent, helpful and hostile

- Proof Corruption: Turns true statements false and false statements true in its vicinity

- Logical Anchor: Cannot be moved or banished without proving a contradiction

- Paradox Aura: (Environmental) Nearby mathematical operations yield contradictory results (Hazard +2)

Weaknesses:

- Requires constant logical maintenance - becomes vulnerable when distracted by paradoxes

- Cannot resolve contradictions about its own nature

- Vulnerable to meta-mathematical attacks

Horror Effect: Basic arithmetic becomes unreliable - 2+2 might equal 5, 7, or a color
Breaking Point: Witnessing corruption (advance Dread by 2)

12   GM Tips and Advice

12.1   Atmosphere and Tension

Building Mathematical Dread:

- Use precise, formal language mixed with wonder and curiosity
- Describe mathematical concepts as if they were living entities
- Let numbers and equations have personality and agency
- Make logical consistency feel like a precious, fragile resource
- Use geometric descriptions that create mental images of impossibility
- Blend mathematical precision with fae whimsy and wonder

Pacing the Mathematical Horror:

- Start with simple logical puzzles and build to complex paradoxes
- Vary the intensity - allow moments of mathematical beauty
- Use foreshadowing through increasingly strange mathematical phenomena
- Save the biggest revelations for climactic moments
- Balance intellectual challenge with emotional impact

12.2   Managing Mathematical Fear and Sanity

Mathematical Fear as a Resource:

- Fear should drive intellectual curiosity, not paralyze reasoning
- Let players feel powerful even when facing incomprehensible concepts
- Provide opportunities to confront and overcome logical challenges
- Balance intellectual terror with moments of mathematical beauty

Mathematical Sanity Management:

- Make sanity loss feel like the erosion of logical certainty
- Let it change how characters perceive and interact with mathematical reality
- Provide ways to recover or adapt to logical trauma
- Avoid making characters useless when mathematical sanity is low

12.3   Narrative Techniques

Player Mathematical Agency:

- Give players meaningful choices in approaching logical problems
- Let different skill sets contribute to mathematical challenges
- Provide multiple valid approaches to paradoxes
- Respect creative solutions even if mathematically unconventional

- Allow players to define new axioms when old ones fail
- Make failure interesting rather than simply punitive

Mathematical Knowledge Integration:

- Accessibility First: Ensure mathematical concepts are approachable for all players
- Logic Matters: Maintain internal consistency even in impossible scenarios
- Player Creativity: Reward innovative approaches to logical problems
- Wonder Over Complexity: Prioritize the sense of discovery over technical difficulty
- Failure is Fascinating: Make incorrect solutions lead to interesting consequences
- Multiple Intelligences: Provide challenges that different types of thinkers can contribute to

13   Appendix: Additional Resources

13.1   Character Options

Recommended Backgrounds:

- The Scholar of Fractured Truths (Wizard archetype with mathematical focus)
- The Caretaker of Cycles (Druid archetype with logical harmony)
- The Chronicler of Consequences (Bard archetype with emphasis on recording truths)
- The Border-Warden (Ranger archetype with focus on navigating logical boundaries)
- The Ascetic of the Unbound Body (Monk archetype with mental discipline)

Essential Skills:

- Lore (Mathematics, Logic, Fae Culture)
- Arcana (Mathematical Magic, Proof Construction)
- Investigation (Pattern Recognition, Paradox Analysis)
- Insight (Logical Intuition, Paradox Detection)
- Diplomacy (Negotiating with Numerical Entities)
- Survival (Navigating Impossible Geometries)

Suggested Talents:

- Lorekeeper (Recall obscure mathematical truths)
- Backlash Soothing (Reduce logical paradox backlash)
- Numerical Insight (Aeler Affinity for mathematical perception)
- Ritual Master (Lead complex mathematical workings)
- Echo-Walker's Step (Observe perfect echoes of logical events)
- Geasa Oath-Weaving (Bind mathematical truths with fae precision)

13.2   Protective Items

- **Logical Anchor Stone:** Provides +2 dice to resist mathematical paradox effects and reduces Dread Clock advancement by 1 (minimum 1). Crumbles to dust if Dread Clock fills completely.

- **Proof of Consistency:** Can be used to stabilize logical inconsistencies. One use per session to prevent clock advancement or gain start Controlled vs. mathematical threats.

- **Axiom Keeper's Codex:** Once per session, allows reroll of failed Wits + Lore roll and prevents 1 segment of Dread Clock advancement.

13.3   Mathematical Artifacts

- **Infinite Series Calculator:** A device that computes endless mathematical sequences. User gains +1 die to mathematical calculations but must make Wits + Arcana (DV 3) each session or advance Dread Clock by 1.

- **Mirror of Logical Reflection:** Shows the logical consequences of actions. Provides valuable insights (Wits + Lore, DV 3) but each use advances Dread Clock by 1 and generates 1 SB.

- **Axiom of Choice Garment:** A cloak that allows the wearer to select from infinite possibilities. Grants immunity to deterministic attacks but causes the wearer to see all possible outcomes constantly. Must make Wits + Perception (DV 4) or advance Dread Clock by 2 each day worn.

13.4   Sample Mathematical Puzzles

Recursive Logic Puzzles:

- The Liar's Paradox Garden: A section where every statement is either true or false, but the signs contradict themselves

- Infinite Corridor: A hallway that contains rooms for every possible solution to a problem, but you must find the correct one to exit

- Self-Referential Riddle: "This riddle has no solution that can be found by following the instructions in the riddle"

- Thoughtweaver's Garden Gate: A door that can only be opened by proving something true about the locking mechanism that cannot be proven

Geometric Impossibilities:

- The Stripweaver Path: A trail that leads you back to your starting point but mirror-inverted

- Geomancer's Nightmare: A room where the angles of triangles don't add up to 180 degrees

- The Flaskkeeper Bottle Grove: A garden where the inside and outside are the same space

- Fractal Forest: Trees that branch infinitely, requiring pattern recognition to navigate

14   Conclusion

"The Recursive Garden" is designed to challenge your players not just physically, but intellectually and philosophically. The horror lies not in violence or gore, but in the terrifying realization that

the fundamental laws of logic and mathematics - the very foundations of certainty - can become weapons against reason itself.

Remember that the best mathematical horror comes from the beauty of logical truth twisted into something incomprehensible. Let the players experience the wonder of mathematical discovery alongside the terror of its potential corruption.

Most importantly, maintain communication with your players about comfort levels and boundaries. Mathematical horror can be deeply personal, and what one player finds thrilling, another might find genuinely distressing. A good mathematical horror game is one where everyone at the table is having fun and feeling appropriately challenged, not traumatized.

The mechanics provided here are tools to enhance the mathematical horror experience, not replace good storytelling and atmosphere. Use them to support your narrative goals and create memorable, intellectually challenging experiences for your players.

As the GM, you hold the quill that writes the theorem, but it is the players who prove the corollary. Guide them through the Recursive Garden, challenge their perceptions, and let them emerge changed by their journey - for better or for worse.

In the garden where logic grows in spirals, where numbers dance and theorems breathe, remember: The most beautiful mathematical truths are those which most resemble paradoxes.

Aelinnel thanks you for your logical service. Please return all borrowed axioms to their proper shelves. Proof is a responsibility, not a right. Wonder awaits those who embrace incompleteness.

May your dice roll true, your proofs be elegant, and your players emerge from the Recursive Garden forever changed.

Quick Reference Cards

Dread Clock Management

Trigger	Segments
Encountering logical paradox	+1 (prevent with 1 Boon)
Witnessing mathematical proof fail	+2 (prevent with 2 Boons)
Seeing fae logic contradict itself	+1 (prevent with 1 Boon)
Direct contact with numerical entities	+2 (prevent with 2 Boons)
Companion shows logical corruption	+2 (prevent with 2 Boons)
Comprehending incomprehensible truth	+3 (prevent with 3 Boons)

Mathematical Psychological Effects

Segments	Effects
0-2	Unease: Numbers move when not looked at, -1 die to mathematical social rolls
3-4	Fear: Basic math becomes anxiety-provoking, -1 die when alone
5-6	Terror: Logical reasoning painful, -2 dice to courage/rational rolls
7-8	Madness: Mathematical truths shift, -2 dice to most rolls
9-10	Broken: Cannot distinguish reality, out of control, hostile

Campaign Clocks Quick Reference

Logical Consistency Clock (12 segments):

- Measures mathematical law inconsistency
- Triggers: Paradoxes, proof failures, recursive loops

Garden Integrity Clock (10 segments):

- Tracks Recursive Garden structural breakdown
- Triggers: Spatial anomalies, illogical growth, recursive paths

Proof Collapse Clock (8 segments):

- Measures established truth reliability
- Triggers: Arithmetic failures, geometric shifts, theorem falsification

Recursive Depth Clock (6 segments):

- Measures anomaly penetration depth
- Triggers: Second-order logic, meta-mathematics, self-reference

Custom Mechanics Summary

Recursive Logic Mechanic:

- Wits + Lore (DV 2) to navigate recursive loops
- Failure: 2 SB, +1 Logical Consistency, trapped in loop
- Escape: 1 Boon, different framework, accept paradox

Geometric Impossibility Perception:

- Wits + Survival with position modifiers (Controlled DV 2, Risky DV 3, Desperate DV 4)
- Failure: 2 SB, +2 Garden Integrity, lost in folds
- Aids: Mathematical instruments (+1 die), fae guidance, accept impossibility

Proof Verification:

- Wits + Arcana for temporary logical stability
- Minor (DV 1): Stabilize one clock for 1 segment
- Moderate (DV 2): Reduce one clock by 1 segment
- Major (DV 3): Stabilize all clocks for 1 round

Numerical Sentience:

- Negotiate with (Presence + Diplomacy, DV 2-4)
- Prime numbers: stubborn, refuse to divide
- Irrational numbers: infinite rambling speech
- Negative numbers: pessimistic, spread doubt
- Zero: existentially confused

Deck-Based Mathematical Encounters

Spades (Mathematical Domains):

- Null Set, Divided Mind, Broken Proof, Irrational Ramble, Contradiction

Hearts (Fae Personality):

- Courteous Host, Playful Trickster, Melancholy Scholar, Jealous Peer, Obsessive Perfectionist

Clubs (Horror Elements):

- Gentle Madness, Recursive Anxiety, Logical Trap, Geometric Nightmare, Proof of Doom

Diamonds (Abilities):

- Simple Equation, Geometric Shift, Logical Compulsion, Proof of Presence, Fractal Attack

Resolution Paths Summary

Path	Outcome & XP
The Elegant Proof	Higher-order solution. Award 18-20 XP.
The Containment	Mathematical prison. Award 12-15 XP.
The Transformation	Reality change. Award 8-12 XP.
The Sacrifice	Truth abandonment. Award 15-18 XP.
The Incompleteness	Accept uncertainty. Award 10-14 XP.