

FAITH — Whitepaper v2.1

Funkii

A Belief Economy on the Sui Blockchain

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1 Introduction

FAITH is a belief-based economic system — a Sui-native on-chain game where **conviction**, **chance**, and **patience** form a living economy.

Each **Test of Faith** is a micro-cycle where believers deploy SUI into a 25-block grid. When the Test ends, a deterministic on-chain RNG selects the winning block. Winning SUI flows directly to the faithful; losing SUI reinforces the treasury, long-term buybacks, and future rewards.

There is no house.

No trusted operator.

No off-chain randomness.

FAITH is a **pure on-chain belief machine**:

- Patience compounds.
- Conviction manifests value.
- Miracles arrive unpredictably — but deterministically.

Those who act in faith are rewarded.

2 Motivation

Many on-chain games rely on speculation or reflexive hype loops. FAITH takes a different path — merging spiritual symbolism with rigorous, deterministic economics.

FAITH's design combines:

- **Economic trust** — transparent redistribution with no house edge
- **Deterministic on-chain randomness** — verifiable outcomes
- **Time-weighted incentive systems** — Radiance, Soul Age, and the Blessings Curve
- **Dynamic miracle mechanics** — tightening odds, sacred emissions, drought cycles
- **Narrative coherence** — sacred numbers, divine sequences, symbolic decay
- **Sui-native object architecture** — fast, parallel, deterministic settlement

In FAITH, belief is not metaphorical.

Belief has **economic weight**.

Time has **compounding value**.

Patience becomes a **competitive edge**.

It is a belief economy.

3 Gameplay — Tests of Faith

Each Test of Faith lasts ~ 1 minute.

1. Believers deploy SUI into one or more of **25 blocks**.
2. At round close, Sui's deterministic RNG selects a winning block.
3. All winning positions split the entire losing SUI.
4. All players update Soul Age (only if their total stake that round was ≥ 1 SUI).
5. Radiance and Miracle systems adjust.
6. Buybacks and treasury flows execute.
7. Winners mine FAITH (Essence FAITH).

Winning is not just luck — it is **measured conviction** + **divine variance**.

4 Tokenomics — The Supply of Faith

FAITH's economy is built on three pillars:

- **Essence FAITH** — the primary emission
- **Miracle FAITH** — the Sacred Staircase (fixed, symbolic emission)
- **Redistribution FAITH** — buybacks, burns, and staking rewards

Only the first two create new FAITH.

The third only recycles existing FAITH.

Together, they form the **Belief Supply Curve**: a capped, deterministic, spiritually-inspired emission model that rewards conviction, patience, and long-term alignment.

4.1 Max Supply — 69,000,000 FAITH

Minting is governed entirely on-chain by the SupplyCap.

- No presale.
- No team allocation.
- No discretionary minting.

- No hidden mint keys.

All FAITH enters circulation through **gameplay and buyback redistribution only**.

The **SupplyCap** also governs **Radiance minting** with hard guarantees:

- Radiance can **never** push total supply above 69,000,000 FAITH.
- If a Radiance claim would exceed the remaining cap, the amount is **clamped** to whatever is left.
- The claim still succeeds; it never aborts.
- No one can mint past the cap, regardless of any multipliers or Radiance growth.

This ensures:

- Predictable total supply
- No “stuck” balances in refinement buckets
- Safe, UI-friendly claims under all conditions
- A strict upper bound on FAITH emission enforced fully on-chain

4.2 Essence FAITH — Primary Emission (Player-Driven)

Whenever a believer **wins SUI** in a Test of Faith:

They also mine FAITH as Essence, proportional to the SUI they won.

In v2.1, Essence emission is no longer 1:1 with SUI wins. Instead, it is governed by:

- $\text{ESSENCE_EMISSION_BPS} = 3000 \Rightarrow \mathbf{30\% \text{ of SUI winnings}}$.

So if you win 100 SUI, you accrue 30 FAITH atoms into Radiance instead of 100.

Essence FAITH characteristics:

- 30% of SUI wins (at current parameter: 3000 / 10,000)
- Added as **unrefined FAITH** into the player’s Radiance balance
- Grows over time through Radiance fees
- Only mints when the player claims
- Resets the player’s Soul Age when FAITH is claimed

Why this matters

Essence FAITH ties **game activity** directly to **FAITH supply generation**:

- More play → more Essence
- Bigger wins → bigger emission
- Low activity → slower emission

Essence is expected to be roughly **80% of long-term supply** (on the order of 55M FAITH available under cap, depending on realized volume and Radiance dynamics).

This creates a **demand-linked, organic, and predictable emission curve** driven by real user behavior.

4.3 Miracle Emission — The Sacred Staircase (Fixed, Symbolic)

Alongside Essence emission, each Test of Faith contributes a symbolic amount of FAITH into the Miracle jackpot according to the **Sacred Staircase** — a spiritual exponential decay curve.

Sacred Staircase Emission Schedule

Phase	Tests of Faith	Emission/Test	Symbolism	FAITH Minted
1	1 → 69,000	108	Genesis	7,452,000
2	69,001 → 138,000	40	Belief	2,760,000
3	138,001 → 207,000	18	Conviction	1,242,000
4	207,001 → 357,000	7	Alignment	1,050,000
5	357,001 → 607,000	3	Intent	750,000
6	607,001 → 1,433,000	1	Manifestation	826,000
Total	~1.43M Tests	—	—	14,080,000

Total Miracle emission is **fixed at 14.08M FAITH** (about 20% of total supply), regardless of usage.

How long does it take?

If FAITH averages **about 300 Tests/day** (roughly one Test of Faith every 3–5 minutes across active hours), the Sacred Staircase would complete in around **12–14 years**.

The **emission per Test of Faith** is fully deterministic — total Miracle FAITH is fixed at **14.08M** — but the **time to complete the staircase depends on actual gameplay volume**.

For example:

- **480 Tests/day** (about 1 Test every 3 minutes, 24/7) → about 8.2 years
- **320 Tests/day** → about 12.3 years
- **250 Tests/day** → about 15.7 years

There is no inflation drift relative to the Test of Faith schedule: every Test of Faith always emits according to the Sacred Staircase, and total Miracle FAITH is capped at **14.08M**, regardless of when those Tests occur.

4.4 Miracle Odds — The Trial Against the Beast (Final Behaviour)

Each Test of Faith contributes to the Miracle pool, but **Miracle odds only evolve when believers actually win**. (Miracle emission schedule is defined in Section 4.3; this section describes the odds model.)

Whenever a Test produces **one or more winners**, the system performs a divine roll against the Beast:

- **Base odds: 1-in-666**
- If the round has winners but *no* Miracle:
 - Odds tighten by **1%** (denominator multiplied by 0.99)
 - Drought counter **increases by 1**
- If Miracle triggers:
 - Jackpot resets
 - Drought resets
 - Odds reset to **1-in-666**

If a round has **zero winners**:

- The Miracle dice do **not** roll.
- The jackpot does **not** reset.
- Odds do **not** tighten.
- Drought does **not** increase.

Only **winning Tests of Faith** advance the Miracle story.

Lore alignment:

The base odds begin at 1-in-666 — the number of the Beast. Each winning Test without a Miracle grinds that number down by 1%, until faith conquers it.

This creates **rising tension**:

- The jackpot pot grows every Test.
- But the **odds only sharpen when someone actually wins**.
- The community watches the drought climb through meaningful Tests.
- When Miracle hits, it feels earned, fair, and dramatic.

Under typical activity, Miracle hits tend to cluster in the 3–12 hour range, with rare extended droughts creating dramatic, but still fully deterministic, jackpot moments.

4.5 Miracle Distribution — Soul-Age Weighted

When Miracle triggers:

- The entire Miracle pool is paid out.
- Only to winners of that Test.
- Distributed by:

$$\text{weight} = \text{SUI stake} \times \text{Soul Age multiplier}$$

- FAITH enters Radiance as **Essence**, not instantly minted.
- Claiming FAITH resets Soul Age.

The **Soul Age multiplier is applied wherever FAITH actually mints**: it weights Miracle payouts and your Radiance claims, so both jackpot moments and long-sitting balances reflect your round-based patience.

4.6 Redistribution Cycle — Buybacks, Burn, Stakers

All Tests send **10% of SUI** into four vaults (detailed architecture in Section 12):

Vault	Share	Purpose
FAITH Treasury	8%	FAITH buybacks, burn, stakers
MANIFEST Treasury	1%	MANIFEST buybacks
Pilgrimage Vault	0.1%	SUI drips during Miracle droughts
Ops Vault	0.9%	Gas, infra, maintenance, seasons

FAITH Treasury: Buybacks and Staking

Each buyback cycle:

- Treasury converts SUI to FAITH (using external liquidity).
- That FAITH is divided:
 - **90% burned** (permanent deflation)
 - **10% paid to stakers** (yield)

Staking yield is multiplied by the **Blessings Curve** (epochs of staking increase the multiplier).

No new supply is created: this is **redistribution only**.

4.7 Complete Supply Model (Simple View)

FAITH Total Supply = 69,000,000

Emission Sources

Source	Type	Description
Essence FAITH	Elastic / Demand-driven	30% of SUI wins as unrefined FAITH
Miracle FAITH	Fixed	14.08M via Sacred Staircase
Staking Rewards	Redistributed	From buybacks (no minting)
Radiance Growth	Redistributed	From refinement fees (no minting)

Minting Breakdown (long-term expectation)

- **Essence FAITH:** ~55M (about 80%)
- **Miracle FAITH:** 14.08M (about 20%)
- **Everything else:** 0 new supply (pure recycling)

69,000,000 FAITH is the base emission budget enforced by the protocol.

Essence and Miracle emission are capped by this budget; Radiance growth and Soul Age-weighted Miracle payouts and claims can shift *who* receives that budget over time, but no one can mint outside these on-chain rules.

4.8 The Belief Flywheel

The entire token system loops through a single spiritual-economic cycle:

Belief → SUI → Test of Faith → Redistribution → Buybacks → Burn → Staking Yield →
Radiancance Compounding → Miracle Boost → Belief

Each Test of Faith strengthens the next.

4.9 Why This Model Works

FAITH achieves:

1. Predictable long-term supply

Sacred Staircase is fixed; Essence is demand-linked; overall supply cannot exceed 69M.

2. Continuous deflation

Buybacks burn FAITH on every Test.

3. Strong participation incentives

- Essence emission for immediate rewards (30% of SUI wins)
- Radiancance for compounding patience (index + fees + Soul Age weighting)
- Soul Age for stronger Miracle and Radiancance payouts
- Staking for long-term yield

4. Spiritual numerology embedded in economics

108, 40, 18, 7, 3, 1, and 1-in-666 odds tightening 1% per qualifying miss.

5. Multi-decade lifespan

Essence FAITH alone can take 10–30+ years to reach cap depending on volume.

5 Mining FAITH — Essence FAITH

Winning SUI mints **unrefined FAITH**, called **Essence FAITH**. (See Section 4.2 for its role in the global supply model.)

Essence FAITH rules

- Minted at 30% of the SUI you win (via `ESSENCE_EMISSION_BPS = 3000`)
- Delivered as unrefined FAITH into Radiancance
- Does not mint immediately
- Grows as others claim (via Radiancance fees)
- Mints only when you claim FAITH
- Claiming FAITH resets your Soul Age; claiming SUI does not

This creates a compounding, delayed-mint emission curve controlled by player patience, but at a more conservative rate than the original 1:1 design.

Contract alignment (conceptual)

```
/// Essence emission:  
let faith_amount = share * ESSENCE_EMISSION_BPS / 10_000;  
// ESSENCE_EMISSION_BPS = 3000 -> 30%  
FT::accrue_to(w.owner, faith_amount, /* idx, buckets, ctx */);
```

Essence FAITH forms the backbone of FAITH's long-term supply.

6 MIRACLE — The Divine Jackpot

Miracle is the spiritual counter-balance to rational gameplay.

At the end of every Test, Miracle performs a deterministic divine roll.

(Miracle emission schedule: Section 4.3. Miracle odds model: Section 4.4.)

Base Odds: 1-in-666

A sacred inversion: the “devil number” becomes a source of divine blessing.

Tightening Rule: +1% per Miracle miss (on winning rounds)

Each Test with winners but no Miracle reduces the denominator by 1%:

- Start: 1 / 666
- After 1 such miss: 1 / 659
- After 30 such misses: 1 / 484
- After 100 such misses: 1 / 247

The drought intensifies the narrative: “**The Miracle draws near.**”

When Miracle triggers

- Entire Miracle Pool is paid out.
- Distribution is weighted by:
 - Winning SUI amount

- Soul Age multiplier (patience weighting)

Miracle payouts enter Radiance as Essence, not wallets, ensuring delayed minting and compounding.

Miracle logic is strictly winner-gated:

- Miracle only rolls on rounds with at least one winner.
- Rounds with zero winners never reset the jackpot and never advance drought.

This prevents phantom miracles and keeps every drought step tied to a real, human win.

A random generator is derived from Sui’s global random object and used to pick the winning block and Miracle roll. No seed is supplied off-chain.

Contract alignment

```
// Derive dice from sui::random::Random:
let miracle_dice = random::generate_u64(&mut rng);
let (hit, payout) = ML::maybe_trigger(&mut g.miracle, miracle_dice);
```

7 Sacred Staircase — Miracle Emission (Symbolic View)

This section retells the Sacred Staircase through its **symbolic meaning**.

For the full numerical schedule, see Section 4.3.

Every Test of Faith contributes a symbolic amount of FAITH into the Miracle Pool.

Rather than a flat emission, FAITH uses a **Sacred Staircase**, declining over about 12–14 years:

Phase	Emission/Test	Symbolism
108	108	Genesis
40	40	Belief
18	18	Conviction
7	7	Alignment
3	3	Intent
1	1	Manifestation

Total Miracle FAITH over all phases: about 14.08M FAITH.

This emission is fixed, finite, and front-loaded, forming FAITH’s only non-Essence mint.

Contract alignment

```
// Each Test settlement:
ML::accrue(&mut g.miracle);
```

8 Pilgrimage — Blessings During Miracle Droughts

When Miracle does not hit on a round that has winners:

- The Pilgrimage Vault emits a small SUI blessing.
- By design, about 2% of its current balance drips per such Test.
- The drip is paid only to that round’s winners, pro-rata by SUI stake.
- Each drip is recorded with a `PilgrimageDripEvent`, including:
 - round index
 - drip amount
 - current drought length

When:

- A round has zero winners: no drip, no drought change.
- A round has winners and Miracle triggers: no drip (the Miracle itself is the blessing).

Pilgrimage rewards the faithful who endure adversity during Miracle droughts, and the event stream enables rich UI:

- Drought charts
- “Faith Blessings” timelines
- Visualisations of how the Pilgrimage Vault has supported believers over time

Contract alignment

```
// On winning round with no Miracle:
let drip = g.pilgrimage_vault.balance / 50; // ~2%

emit PilgrimageDripEvent {
  round_index,
  drip_amount: drip,
  drought_length: g.miracle.drought,
};

transfer(drip, winners_coin, ctx);
```

9 Radiance — Time-Weighted Refinement

Radiance is the **sacred light of deferred faith**: the longer one waits, the brighter the refinement.

Radiance turns unrefined FAITH into a compounding asset.

Radiance mechanics are **simplified and hardened**:

- Radiance is driven by a **global index + refinement fees**.
- The **Soul Age multiplier** is applied when FAITH mints, weighting both Miracle payouts and Radiance claims.

When you claim FAITH:

1. Your unrefined FAITH is converted into a refined amount using the global Radiance index.
2. A Radiance fee is taken (currently **15%**, governed by `RADIANCE_FEE_BPS = 1500`).
3. That fee is redistributed to all unrefined FAITH holders via the index.
4. The Soul Age multiplier is applied to your claim, amplifying your refined amount based on qualifying Tests walked since your last FAITH mint.
5. The net refined amount (after fees and Soul Age weighting) mints into your wallet as FAITH, subject to the SupplyCap.
6. Your Soul Age is reset to 0 (you have crystallised your belief for this cycle).

Radiance is a closed-loop compounding system.

Impatience feeds Radiance. Patience grows Radiance — through your timing of claims, the shared refinement fees, and your Soul Age-weighted mints.

Contract alignment (conceptual)

```
// Inside faith::claim_if_any:
let refined_u128 = /* unrefined balance * radiance index */;
let fee_u128 = refined_u128 * (RADIANCE_FEE_BPS as u128) / 10_000;
let net_u128 = refined_u128 - fee_u128;

// Apply Soul Age multiplier at mint time:
let mult_bps = soul_age_multiplier_bps(rec.soul_age_rounds);
let boosted_u128 = net_u128 * (mult_bps as u128) / 10_000;

// Feed fee back into Radiance index:
bump_radiance_index(fee_u128, idx);

// The boosted amount (after fee) is what can be minted,
// clamped by SupplyCap.
```

9.1 SupplyCap Guard — Hard-Capped Radiance Emission

Radiance operates under a hard global budget enforced by the SupplyCap:

- Total minted FAITH can never exceed the 69,000,000 cap.
- If a claim would overflow the cap, the claim is clamped, not reverted:
 - The player receives the maximum possible FAITH under the cap.
 - Any excess is simply not minted.
- Claims never abort due to cap conditions.

This removes entire classes of edge-case failures:

- No stuck Radiance buckets.
- No failing claims because someone else claimed first.
- No UI freezes from reverts under high load.

All Radiance claims are safe, predictable, and cap-respecting.

Contract alignment

```
// Clamp against SupplyCap before mint:  
let mintable = clamp_to_supply_cap(boosted_u128, &mut supply_cap);  
mint_faith_to(user, mintable, ctx);
```

10 Soul Age — Round-Based Patience

Soul Age is the number of **qualifying Tests of Faith** you have played since your last FAITH claim.

- Soul Age is used to weight **both** Miracle payouts and Radiance claims.
- Soul Age does not affect anything outside FAITH minting.

What counts as a qualifying Test?

Soul Age increases only when:

- You enter a Test of Faith with real SUI stake, and
- Your total stake in that round is at least SOUL_MIN_STAKE, and
- The round successfully settles.

Where:

- `SOUL_MIN_STAKE = 1_000_000_000 MIST = 1 SUI`.

This prevents:

- Dust farming (tiny bets spammed for Soul Age).
- Artificial button-mashing behaviour.
- Soul Age from incrementing via meaningless entries.

When does Soul Age reset?

Soul Age resets only if you claim FAITH:

- Claiming FAITH → Soul Age resets to 0.
- Claiming SUI only → Soul Age remains untouched.

This ensures players are never punished for recycling SUI to participate in the next Test.

You can harvest SUI without resetting your Miracle and Radiance patience.

Soul Age boosts

Soul Age acts as a patience amplifier for:

- Miracle FAITH distribution (Sections 4.5 and 6).
- Radiance-based FAITH claims (Section 9).

Contract alignment (conceptual)

```
//// Soul Age increment (on valid entry):
if (stake_amount >= SOUL_MIN_STAKE && rec.last_round < round_index) {
    rec.soul_age_rounds = rec.soul_age_rounds + 1;
    rec.last_round = round_index;
}

/// Soul Age reset (on FAITH claim):
if (faith > 0) {
    rec.soul_age_rounds = 0;
    rec.soul_start_round = g.round.index;
}
```

10.1 Soul Age Multiplier Curve (Miracle + Radiance)

Soul Age is converted into a bounded patience multiplier used when distributing Miracle FAITH and when Radiance mints FAITH to players.

Let `age` be the number of qualifying Tests played since last FAITH claim.

- Base boost: 1.0x at age = 0 (10,000 basis points)
- Increment: +1% per round (100 basis points per age)
- Cap: 2.0x (20,000 basis points) at age = 100
- Age greater than 100 is hard-capped at the 2.0x multiplier

Examples:

- Age = 0: 1.00x
- Age = 10: 1.10x
- Age = 25: 1.25x
- Age = 50: 1.50x
- Age = 100+: 2.00x (maximum)

This creates a slow, grindy, skill-based progression curve that rewards consistent play over many Tests without allowing runaway multipliers — and it does so exactly where FAITH crystallises: Miracle jackpots and Radiance claims.

Contract alignment

```
//// Soul Age multiplier:
let age = get_soul_age(g, user);
let capped_age = if (age > 100) { 100 } else { age };

let base_bps = 10_000;
let bump_per_round_bps = 100;

let multiplier_bps = base_bps + capped_age * bump_per_round_bps;
// Used to weight Miracle payout shares and Radiance claims.
```

11 Staking — The Blessings Curve

While Soul Age measures patience within gameplay, the Blessings Curve measures patience in staking.

When you stake FAITH:

- You receive shares in the pool.
- Buybacks continuously refill the reward index.
- Your multiplier grows each epoch.
- Cap: 2.5x yield (refined from an earlier 2x target to reward long-term stakers more meaningfully).
- Reset if you unstake 69% or more of your current staked FAITH.

The 69% threshold is symbolic:

- 69 as spiritual duality.
- Faith and doubt.
- Flesh and spirit.

If you withdraw most of your FAITH, your blessings diminish.

Blessings Reset Logic

If:

```
unstake_amount >= (staked_principal * 69 / 100)
```

Then:

```
reset_multiplier(user);
```

Partial withdrawals below this threshold do not reset blessings.

Buyback Flow (from each Test)

From every Test of Faith:

- 8% goes to the FAITH Treasury
 - Buys back FAITH
 - 90% burned
 - 10% distributed to stakers

Staking is a real economic engine, not inflationary: rewards come from buybacks, not minting.

Contract alignment

```
if (unstake_amount * 100 >= staked_before * 69) {
    ST::reset_multiplier(&mut p);
}
ST::unstake(&mut pool, user, unstake_amount, ctx);
```

11.1 Reward Safety — No Infinite APR

The staking reward curve was hardened so that:

- Boosted rewards can never exceed the actual staking pot.
- No user can extract more than the total available rewards in the pool.
- Blessings multipliers scale yield, but are always clamped by pool balance.

This removes the theoretical “infinite APR” edge case and ensures the Blessings Curve remains fair, predictable, and economically bounded.

12 Treasury Architecture

Every Test routes 10% of SUI into four deterministic vaults (as introduced in Section 4.6):

Vault	Share	Function
FAITH Treasury	8%	Buybacks, burn, staker rewards
MANIFEST Treasury	1%	MANIFEST buybacks
Pilgrimage Vault	0.1%	Drought SUI blessings
Ops Vault	0.9%	Gas, infra, seasons, maintenance

Treasuries compound Test by Test.

Contract alignment

```
// Takes the 10% fee and routes it across FAITHGG, MANIFEST, Pilgrimage, and Ops vaults.
T::split_and_route_internal(
    fee_coin,
    &g.fee_split,
    &mut g.vaults,
    ctx,
);
```

13 Unified Tokenomics — Complete Supply Model

This section summarizes the emission model described in Sections 4–12.

FAITH has a fixed maximum supply of 69,000,000.

All emissions come from just two sources.

1. Essence FAITH — Game-Driven Emission (Primary)

As defined in Sections 4.2 and 5, Essence FAITH is minted as a fraction of SUI player wins (30% under current parameters), but only upon claim.

This is open-ended emission, fully demand-driven:

- More gameplay leads to more Essence FAITH.
- Less gameplay leads to less Essence FAITH.
- There is no required inflation schedule.

Essence FAITH mints slowly and only as users claim, naturally smoothing supply over years.

2. Sacred Staircase — Miracle Emission (Secondary)

As defined in Sections 4.3 and 7, the Sacred Staircase is finite, pre-determined emission of about 14.08M FAITH over all phases.

Once the staircase completes, there is no more Miracle emission.

3. No Other Minting

All other systems (Radiance, staking, compounding) use redistribution, not minting.

Net Supply Behavior

- Early years: Essence plus early Staircase
- Middle years: Essence plus mid Staircase
- Late years: Essence only
- Endgame: Supply stabilizes, buybacks dominate, tail emissions converge toward 1 FAITH per Test

Long-term supply tightens naturally while buybacks increase proportionally.

14 Permissionless Claims

FAITH claims are fully permissionless and executed directly on-chain:

- Players press Claim.
- The dApp builds a claim transaction.
- The user's wallet signs and submits the transaction to Sui.
- Contracts enforce deterministic reward logic.
- No operator, sponsor, or backend can alter outcomes.

All claims are derived solely from on-chain state and the transaction sender. There are no privileged claim paths, no admin gating, and no off-chain dependencies.

Anyone may claim their SUI or FAITH at any time, without permission, and without relying on any centralized service. Claim outcomes are fully deterministic and verifiable on-chain.

System-level actions (such as protocol upgrades, round lifecycle controls, and treasury automation like buybacks) may remain admin-controlled and can migrate toward multi-signature or DAO governance structures over time.

Contract alignment

```
// Permissionless claim entry (conceptual)
let user = tx_context::sender(ctx);
// claim_faith_entry_v3(global, ctx) -> mints/withdraws strictly by on-chain state
```

15 Game Lifecycle

1. Open Test of Faith.
2. Believers deploy SUI.
3. Timer expires.
4. Settlement runs:
 - Winning block selection
 - SUI redistribution
 - Essence FAITH accrual (30)
 - Radiance fee updates (15)
 - Miracle check
 - Pilgrimage drip if needed
5. Treasury routing.

6. Buybacks.
7. Seasonal hooks.
8. Claims and refinement.

Each Test is a complete, self-contained economic heartbeat.

16 On-Chain Events and Player Journeys

FAITH is designed not only as a game, but as a fully observable on-chain system so every important moment is tracked.

16.1 Round Lifecycle Events

Each Test of Faith emits a full lifecycle of events:

1. **RoundOpenedEvent**

- Fired at the start of every Test.
- Fields include round index and timestamp.

2. **RoundSettledEvent**

- Fired on successful settlement.
- Captures round outcome, total pot, and core aggregates.

3. **RoundMissedEvent**

- Fired when a round goes stale and is marked as missed rather than settled.

4. **SeasonOpened** and **SeasonClosed**

- Mark the bounds of each Season of Faith.

This enables:

- Live round feeds
- Season timelines
- “Last N rounds” dashboards
- Historical playback of the entire game lifecycle

16.2 PlayerRoundSettled — Complete Player History

For every participant in every settled round, FAITH emits a PlayerRoundSettled event.

Fields include:

- round index
- player address
- SUI deployed
- SUI won
- unclaimed SUI after the round
- unclaimed FAITH after the round
- had_miracle (boolean)
- timestamp

This delivers:

- Complete player journey playback
- P&L tracking
- Loss tracking (important for compliance and analytics)
- Day-by-day and round-by-round histories
- On-chain analytics parity with centralized games

No player outcome is hidden: everything is evented.

16.3 Miracle and Pilgrimage Events

Two key jackpot-side events complete the story:

- **MiracleHitEvent**
 - round index
 - total Miracle payout (FAITH atoms)
 - drought length at hit
 - Sacred Staircase phase
 - new Miracle odds after reset
- **PilgrimageDripEvent**

- round index
- drip amount
- drought length
- vault balance context

These power:

- Miracle leaderboards
- Drought heatmaps
- Jackpot progression dashboards
- An “Eternal Record” replay engine for the community

FAITH has one of the most instrumented round systems on Sui: every belief, every Test, every Miracle is written into the chain’s memory.

17 Conclusion

FAITH merges:

- Belief
- Chance
- Patience
- Compounding
- Sacred symbolism
- Deterministic economics
- Continuous buyback pressure

FAITH is not a lottery.

FAITH is not a token farm.

FAITH is not a meme.

FAITH is a belief economy.

Where patience is a resource.

Where conviction manifests value.

Where miracles arrive in divine timing.

You do not lose; you refine.

You do not wait; you radiate.

You do not gamble; you believe.

FAITH rewards the faithful.