

This document is part of the **Frontiers Design Documentation**, a set written to teach instead of to instruct. Each entry takes one subsystem, explains what that subsystem is in the wider language of tabletop design, surveys how games have solved it, and then shows what Frontiers does as one worked answer among many.

It is written for several readers at once:

- Designers using Frontiers who want to understand why it works the way it does.
- Designers using Frontiers who want to change it, and need to know what a change will cost.
- Designers building something else entirely, who want the design space mapped before they choose.

Frontiers is a toolkit, and a toolkit is only useful if you can see what each tool is for. None of this is a rule; the rules live in the Rulesets, and what follows is the reasoning, the history, and the alternatives.

There will be terminology here that is unfamiliar to casual players. Treat this documentation as advanced content, written for designers interested in building. It will not teach you every term or phrase it uses, but it will do its best to define them as they arrive.

What is Resolution

Here is another one that is no fun at all to design and matters enormously anyway.

A resolution system is how a game turns an uncertain attempt into an outcome. When a character tries something that might not work, resolution is what decides whether it did, and it is the one subsystem every single action passes through. You will touch it more than any other rule in the game, hundreds of times a session, which is exactly why it is so easy to underrate while designing and so impossible to ignore while playing.

Resolution answers two questions, and they are worth separating:

1. **How does an attempt become an outcome?** The mechanism. What you roll, what you compare it against, and what shape the randomness takes.
2. **How is success divided from failure?** The verdict. Whether the answer is a clean yes-or-no, whether there are degrees, and where exactly the line falls.

Almost every other rule in a game is content poured into the frame these two questions build. Answer them well and everything downstream has solid ground to sit on; answer them badly and no amount of good content saves it, because the wrongness is felt on every roll.

Why it matters more than it looks like it should

Resolution sets the **feel** of a game more than any other single system, and it does it below the level most players consciously notice.

Consider what the mechanism alone decides. A flat die, where every result is equally likely, makes a game swingy: the underdog always has a real chance and the expert is never safe, and play feels volatile and exciting. A curved system, where results cluster in the middle, makes a game dependable: competence holds up, upsets are rare, and play feels earned and stable. Neither is better. But a designer who picks one without noticing has chosen the emotional texture of their entire game by accident.

The verdict half matters just as much. A binary system, pure success or failure, is fast and stark, and every roll is a coin's edge. A system with degrees, where you can succeed at a cost or fail forward, is richer and slower, and turns every roll into a small story. Again, neither is correct, and again, the choice colors every moment of play whether the designer meant it to or not.

This is the trap of resolution. It looks like plumbing, a technical decision to be settled quickly so the interesting design can begin, when it is in fact the thing every other decision flows through, and its character becomes the game's character. A designer should choose it, knowing what each option does to how the game feels in the hand.

Every roll in your game passes through this one system. What do you want that moment to feel like?

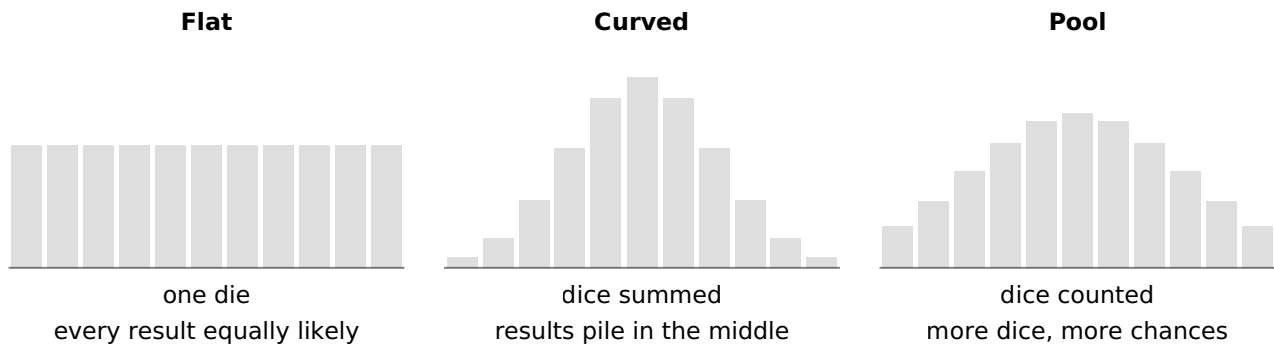
The Approaches

Resolution is a broad design space, but almost all of it comes down to how a system answers the two questions: how an attempt becomes an outcome, and how success is divided from failure. It is more useful to understand the forces at work than to catalogue every game, so what follows is organized by idea, with systems named only as evidence.

The mechanism: what shape is the randomness?

The single most consequential choice is the shape of the random element, because that shape is what a game feels like before any other rule is added.

Three shapes of randomness



The shape decides the feel before any other rule is written.

Flat randomness gives every result an equal chance. A single die is the clearest case, and the 5e SRD lineage is built on one. The effect is volatility: skill tilts the odds but never secures them, the weak always have a puncher's chance, and the strong are never safe. This is why single-die games feel exciting and unpredictable, and also why they can feel arbitrary, since competence is only ever a thumb on the scale.

Curved randomness clusters results toward the middle, and it arrives the moment you add dice together. Roll two or three dice and sum them and the extremes become rare while the average becomes common. The feel flips: competence becomes reliable, upsets become genuine events, not routine noise, and the game rewards being good at something with actually being good at it. GURPS on 3d6, and any 2d6-summed system, live here. The cost is excitement at the edges, since the wild swing a flat die offers is exactly what a curve suppresses.

Dice pools ask a different question again. Instead of one number, you roll a handful of dice and read them as a group. Some pools count how many clear a bar, as Shadowrun does, so competence adds dice rather than adding to a total, and a skilled character rolls more chances, not a higher number. Others read the best die: Blades in the Dark builds a small pool of d6 and looks only at the single highest, where a 6 is a full success, a 4-5 is success at a cost, and anything lower fails. Either way, a pool feels dependable in a way a flat bonus does not, because it is many small hopes, not one large one, and pools tend to produce degrees for free, since the count or the top die already says how well.

Split dice pull the two halves of a roll apart. Ironsworn rolls one action die against two separate challenge dice, and the verdict is how many of the two you beat: both is a strong hit, one is a weak hit, neither is a miss. The mechanism itself produces three graded outcomes without any margin arithmetic, because the structure of the roll, one value measured against two, is doing the grading. It is a reminder that degrees do not have to be read off a single number; they can be built into the shape of the throw.

What sits under all of these is that no mechanism is neutral. Before a designer writes a single skill or ability, the shape of their dice has already decided whether their game is volatile or dependable, and that decision is felt on every roll for the life of the game.

The verdict: how sharp is the line?

The second question is what the mechanism's output means, and the range runs from a hard binary to rich gradients.

How sharp is the line between success and failure

Binary	fail	succeed		
Degrees	fail	partly	succeed	well
Mixed result	miss	at a cost		clean

The wider the middle, the more often a roll asks the table to author something.

Pure binary asks only "did you meet the number." You succeed or you fail, cleanly, and the game moves on. This is fast and stark, and it keeps every roll tense, since there is no soft landing. Much traditional play works this way, and its virtue is speed: the answer is instant and unambiguous. Its cost is that a hair's-breadth success and a triumphant one read identically, and so do a near-miss and a catastrophe.

Degrees of success ask "how well," not just "whether." The margin between the roll and the target becomes information: beat it by a lot and something extra happens, miss by a little and you fail softly. The percentile tradition, Call of Cthulhu among them, reads success bands off the same number that decided the roll, so degree costs nothing extra to determine. Degrees make every roll a small story, not a switch, at the price of a little more to interpret each time.

The mixed result goes furthest, and the Apocalypse World family is its clearest expression. A roll can land on success, failure, or a middle band where you get what you want at a cost, or fail in a way that moves the story forward. The Forged and Ironsworn lineages build their whole feel on this middle band, often making it the most common result instead of an edge case, so most rolls come out complicated instead of clean. This turns the verdict from a line into a spectrum, and it changes what failure even means: a failed roll is not a dead end but a complication, a door opening as another closes. It is the richest verdict on offer, and it asks the most of the table, since someone has to author the cost or the complication every time the dice land in the middle.

The same holds here as with the mechanism. A designer choosing a verdict is deciding how much meaning a single roll carries, and that choice sets the pace and the texture of play as surely as the dice do.

The two choices combine

The useful insight is that these two axes are independent, and a game's whole resolution character is the combination. A flat die with a binary verdict is fast and swingy, the classic pick-up-and-play feel. A curved sum with rich degrees is dependable and story-heavy, slow in the best way.

A dice pool splits the difference, offering reliability and built-in degrees at once. No corner of that space is the correct one; the question is which matches the feeling a designer is trying to build, and

the honest work is choosing both axes instead of inheriting a familiar pair without noticing you had a choice.

What Frontiers Does

Now, with that overview to catch you up to speed, here is the approach Frontiers takes, and the reasoning that led there. This is the one subsystem where Frontiers does not give a single answer. It gives three, and the point of this section is why those three are one design instead of three.

The shared spine

Underneath all three rulesets is the same resolution act: **roll against a target**. You roll, you compare to a number, you meet it or you do not.

This is deliberately the plainest thing it could be. Rolling against a target is the most forward, least fussy way to resolve an attempt, it takes no explaining, and because it is consistent, a designer can build on it without relearning how resolution works each time. It is also open at the edges.

Nothing stops a system from adding rolls to defend, contests, or a different comparison entirely; the spine is simple precisely so there is room to extend it. Frontiers picks the humble option, because an engine's base layer should be the thing everyone can agree on and nobody has to fight.

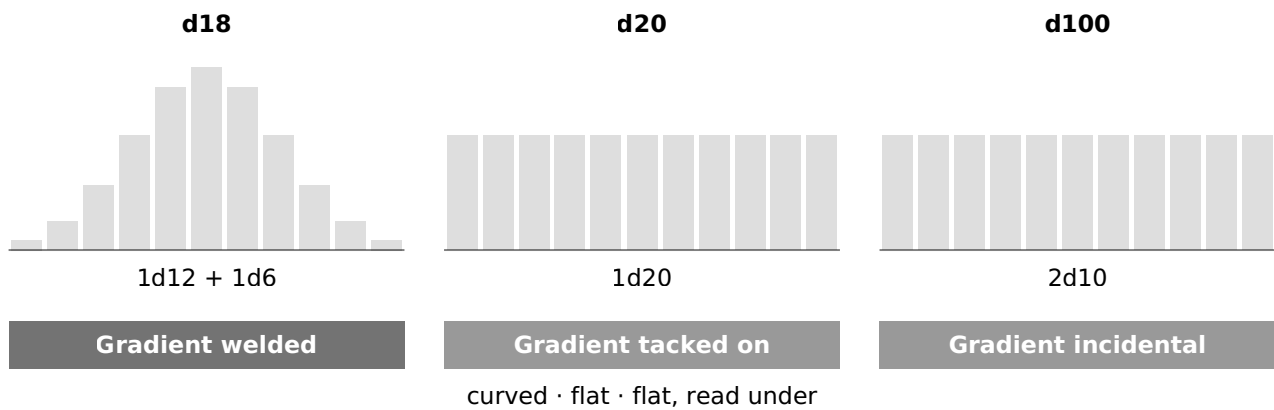
On top of that spine sit three constants that make a roll recognizably Frontiers no matter which die you use: a **Gradient** for how well it landed, **Favor** for circumstance, and the option to **take your Score** instead of rolling at all. Those three travel across every ruleset. What changes is only the dice underneath them.

Three expressions on one scale

The three rulesets sit as three points on a sliding scale rather than as rivals, running from classic to tactical, with Frontiers' own opinion in the middle.

- The **d20** leans classic. A flat die, familiar to nearly everyone, swingy in the way people expect a d20 to be.
- The **d100** leans tactical. A roll-under percentile scale with room for real numbers, where circumstance and competence are exact and play is granular.
- The **d18** sits between them, and it is Frontiers' actual method: the curved, opinionated middle that trades the d20's swing for reliability without going as far as the d100's granularity.

The same two questions, answered three ways



One spine, three shapes of chance, and the Gradient set at three depths.

There are two reasons to ship all three instead of picking one. The first is that I build official systems on this engine, and I do not want every one of them to feel the same. Handing myself three resolution feels is how a *Frontiers* horror game and a *Frontiers* tactical game come out genuinely different instead of reskinned.

The second is the message it sends to everyone else: the dice are meant to be swapped. Offering my own three, plus leaning on the two most familiar dice in the hobby, means a designer can hook onto whichever one already matches the game in their head, and trust that the rest of the engine will still fit.

The Gradient, at three depths

The Gradient, reading how well a roll landed and not only whether it succeeded, is the piece *Frontiers* is proudest of, and it is the clearest answer to the question every new engine has to face: what makes this different from rolling a d20 like always? Degree-of-success, treated as a first-class part of every roll instead of an afterthought, is a large part of that answer.

But I know not everyone wants it. Some tables find degree-of-success a chore, and an engine that forced it would be picking a fight it does not need to pick. So instead of mandating the Gradient or dropping it, *Frontiers* integrates it at three different depths, one per ruleset, and that difference is a feature:

- On the **d18**, the Gradient is **welded in**. The same die that decides success is read again for degree, so the two are one act, and it feels integral because it is. This is the Gradient at its best. The weld produces a real but moderate tilt rather than a lockstep: at DT 12 unmodified, a success reads Positive about 48% of the time against Negative about 19%, and a failure reverses that. The 1d12 carries most of the sum's variance, so the 1d6 colors the verdict without dictating it.
- On the **d20**, the Gradient is **tacked on**. A separate die, rolled alongside, entirely optional. A table that does not want it simply never picks it up, and nothing else changes.
- On the **d100**, the Gradient **falls out naturally**. It is already sitting in the units die of the percentile pair, there whether you look or not. Remove the rule and, again, nothing else moves.

The spread is intentional, since different tables want different amounts of this idea, so each ruleset offers a different level of commitment to it, from load-bearing to removable. It is also part of why the d18 is the recommended form: the Gradient is the soul of Frontiers, and it feels best where it is welded instead of bolted on, so the version that welds it is the version I point to first.

Favor, because it is the honest math

Circumstance is expressed as **Favor and Disfavor**, an extra die kept high or low, instead of as numeric bonuses. The reason is plain: it is the easiest math to balance in an engine meant to be built on. A number has to be sized, and sizing situational numbers correctly is one of the hardest things in system design; a die of Favor is always worth roughly the same amount, so a designer can hand it out without doing arithmetic about whether this bonus is too large.

This does not ban numbers. A system that wants numeric modifiers can use them, and the d100 leans on them openly, because a hundred-point scale has the room. But the engine does not lean on them by default, because they are familiar and comfortable right up until you have to balance a pile of them. Favor is the safer foundation, and safe foundations are what an engine owes the people building on it.

Initiative is just the same idea

Initiative gets no special theory. Frontiers has a passive-assurance philosophy running through the whole engine, take your Score for certainty, or roll to reach past it, and Initiative simply extends that to turn order. You can take a flat, reliable Initiative and know where you stand, or roll for the chance at more and the risk of less. It is the resolution philosophy applied to one more number.

Is this the best solution for Resolution?

Honestly, resolution is the subsystem I am least willing to call finished, and the Gradient is why.

The spine is solid, and the three expressions do what I want. But the Gradient is genuinely hard to get right, and I do not think anyone has fully solved degree-of-success, me included. It is not flawed so much as dependent. Much like the language rules many games ship and few tables ever invoke, its value comes down to whether the GM and the system designer actually reach for it.

Lean on it and it sings, ignore it and it withers, so it never quite behaves like a clean mechanical slot-in that works the same at every table regardless of attention. I would rather say that plainly than pretend otherwise.

That dependence is baked into the design rather than papered over. The three depths exist precisely because I expect varying levels of engagement with the Gradient, and the d18 is recommended precisely because it is the form where the Gradient carries its own weight instead of asking the table to carry it. I fully expect official Frontiers systems, and the systems others build, to keep modifying and extending it, because it is a good catch-all idea that is nowhere near exhausted.

So no, none of this is the last word on resolution. What it is instead is a strong spine, three honest expressions of one philosophy, and one genuinely open question I am handing to you along with the tools to answer it. The final section below sets out variant and alternative rules you can use in place of any of it, along with what each one changes and what it will cost you elsewhere.

A note before the changes

Resolution is different from every other subsystem here.

Everywhere else, the engine gives one design and a menu of ways to change it. Resolution gives three finished designs, the d18, d20, and d100, each one handcrafted and balanced, and those three are already the main answer to "what if I want a different resolution feel." So this section is shorter than the others on purpose.

Changing resolution meaningfully means either tuning within one of the three rulesets, which is straightforward, or replacing the spine wholesale, which is the single most disruptive thing you can do to the engine, since nearly everything else targets a number that the spine produces.

I will be honest about the ceiling here. If you want a resolution system genuinely unlike these three, I cannot hand it to you. You will have to design it, which means deciding for yourself how you want every roll in your game to feel, and then rebuilding everything that depends on the roll to match.

What I can offer is the three I have fostered, the Variants below for adjusting them, and the promise that if I craft more resolution forms in future modules, they will show up as options too. These three are simply the ones I chose to polish for the core.

Variants

Variants tune a ruleset you have already chosen. These are safe and expected.

Tune the Gradient

The Gradient is the most adjustable thing in resolution, and the rulesets already show it at three depths.

CHANGE ITS DEPTH

Weld it, tack it on, or let it sit incidental, regardless of which die you are using. A d20 game that wants the Gradient to matter more can read it as integral instead of optional; a d18 game that wants it quieter can loosen the weld.

CHANGE THE BANDS

Widen or narrow what counts as a Positive or Negative result, or add finer tiers, exactly as each ruleset's own Gradient section lays out. More bands is more texture and more to read; fewer is the reverse.

REMOVE IT

Cut the Gradient entirely for a pure success-or-failure game. On the d20 and d100 this is a clean deletion; on the d18 you lose the piece the ruleset was built around, so if you are cutting the Gradient, the d18 is probably not the die you want in the first place.

Tune Favor

Favor is the circumstance tool, and it has a few honest dials.

CHANGE THE CAP

Allow more or fewer stacks of Favor and Disfavor. More makes circumstance swingier and situations matter more; fewer keeps rolls closer to raw competence.

LEAN INTO NUMBERS

Add numeric modifiers alongside Favor, or in place of it, for a more tactical, granular feel, essentially moving a d18 or d20 game toward the d100's numeric temperament. This buys precision and costs balance, since situational numbers are the hardest thing in the engine to size well.

Alternatives

Alternatives replace the spine, and every one of them reaches into the entire rest of the engine, because Defenses, difficulty numbers, contests, and every derived target are all built to be rolled against. Treat these as the start of building your own system, not as drop-in swaps.

Change the reading direction

Flip a roll-over ruleset to roll-under, or a roll-under one to roll-over. This reshapes the entire feel of the game, and it is less a tweak than a redesign, since every target number in the engine is written for a particular direction. The d100 already demonstrates roll-under done properly; use it as a reference instead of converting a d18 or d20 by hand.

Leave the spine entirely

Swap "roll against a target" for a fundamentally different mechanism, a counted dice pool, a read-the-best-die pool, a split-dice structure like the ones surveyed earlier. These produce genuinely different games, and they are the furthest thing here from a variant.

Nearly every number in the engine assumes a single result compared to a single target, so a pool or split-dice system means rebuilding Defenses, difficulty, and contests from scratch. Worth doing only if the mechanism is the game you are trying to make, in which case you are using Frontiers' other subsystems as parts instead of adopting its resolution at all.

Change the verdict

Keep the spine but change what a roll means. Go pure binary by cutting the Gradient, for a stark, fast game. Or go the other way and make a mixed result the common outcome, a wide middle band of success-at-a-cost in the manner of the narrative traditions, so most rolls come out complicated rather than clean. The second is the larger change, since it asks the table to author a cost on most rolls, and it shifts the whole game toward the story-forward end of the spectrum.

Whichever direction you take, resolution is the deepest thing to change, because it is the thing every other rule was written to sit on top of. Change it last, change it deliberately, and expect to revisit everything downstream when you do.