

TOWARD 90–95% GTO · ONLINE AND LIVE

Play the Range

You know the words, the hands, the seats, and the math. This is the next layer: the actual ranges, the actual frequencies, and the study loop that turns them into reflexes over years. Everything here assumes *Read the Table* is already in your hands.

1	Preflop by heart — the five opening ranges
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Ranges and frequencies are approximations of GTO Wizard's 6-max NL25 general solutions, cross-checked against the vault's preflop file. Different solutions move a hand or two at the edges; the shapes hold. "Mixed" means the solver does it some of the time — treat those cells as either action.

Preflop by heart

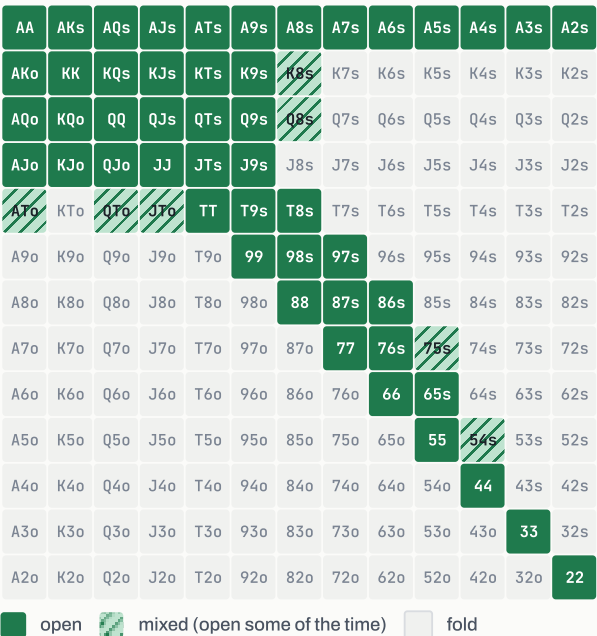
Postflop skill is capped by preflop range. If you open hands the solver folds, every later decision starts from a spot the solution never saw. These five grids are the first thing to memorise — not approximately, exactly.

Reading a grid: pairs run down the diagonal, suited hands sit above it, offsuit below. Dark green is an open; striped is a hand the solver opens some of the time — at 100bb these are the hands whose EV is close to zero either way, so opening or folding them costs almost nothing. What costs money is the blank cells you open anyway.

UTG ≈ 15%



HJ ≈ 21%



CO ≈ 28%

AA	AKs	AQs	AJs	ATs	A9s	A8s	A7s	A6s	A5s	A4s	A3s	A2s
AKo	KK	KQs	KJs	KTs	K9s	K8s	K7s	K6s	K5s	K4s	K3s	K2s
AQo	KQo	QQ	QJs	QTs	Q9s	Q8s	Q7s	Q6s	Q5s	Q4s	Q3s	Q2s
AJo	KJo	QJo	JJ	JTs	J9s	J8s	J7s	J6s	J5s	J4s	J3s	J2s
ATo	KTo	QTo	JTo	TT	T9s	T8s	T7s	T6s	T5s	T4s	T3s	T2s
A9o	K9o	Q9o	J9o	T9o	99	98s	97s	96s	95s	94s	93s	92s
A8o	K8o	Q8o	J8o	T8o	98o	88	87s	86s	85s	84s	83s	82s
A7o	K7o	Q7o	J7o	T7o	97o	87o	77	76s	75s	74s	73s	72s
A6o	K6o	Q6o	J6o	T6o	96o	86o	76o	66	65s	64s	63s	62s
A5o	K5o	Q5o	J5o	T5o	95o	85o	75o	65o	55	54s	53s	52s
A4o	K4o	Q4o	J4o	T4o	94o	84o	74o	64o	54o	44	43s	42s
A3o	K3o	Q3o	J3o	T3o	93o	83o	73o	63o	53o	43o	33	32s
A2o	K2o	Q2o	J2o	T2o	92o	82o	72o	62o	52o	42o	32o	22

 open  mixed (open some of the time)  fold

BTN ≈ 46%

AA	AKs	AQs	AJs	ATs	A9s	A8s	A7s	A6s	A5s	A4s	A3s	A2s
AKo	KK	KQs	KJs	KTs	K9s	K8s	K7s	K6s	K5s	K4s	K3s	K2s
AQo	KQo	QQ	QJs	QTs	Q9s	Q8s	Q7s	Q6s	Q5s	Q4s	Q3s	Q2s
AJo	KJo	QJo	JJ	JTs	J9s	J8s	J7s	J6s	J5s	J4s	J3s	J2s
ATo	KTo	QTo	JTo	TT	T9s	T8s	T7s	T6s	T5s	T4s	T3s	T2s
A9o	K9o	Q9o	J9o	T9o	99	98s	97s	96s	95s	94s	93s	92s
A8o	K8o	Q8o	J8o	T8o	98o	88	87s	86s	85s	84s	83s	82s
A7o	K7o	Q7o	J7o	T7o	97o	87o	77	76s	75s	74s	73s	72s
A6o	K6o	Q6o	J6o	T6o	96o	86o	76o	66	65s	64s	63s	62s
A5o	K5o	Q5o	J5o	T5o	95o	85o	75o	65o	55	54s	53s	52s
A4o	K4o	Q4o	J4o	T4o	94o	84o	74o	64o	54o	44	43s	42s
A3o	K3o	Q3o	J3o	T3o	93o	83o	73o	63o	53o	43o	33	32s
A2o	K2o	Q2o	J2o	T2o	92o	82o	72o	62o	52o	42o	32o	22

 open  mixed (open some of the time)  fold

SB (raise-only) ≈ 40%

AA	AKs	AQs	AJs	ATs	A9s	A8s	A7s	A6s	A5s	A4s	A3s	A2s
AKo	KK	KQs	KJs	KTs	K9s	K8s	K7s	K6s	K5s	K4s	K3s	K2s
AQo	KQo	QQ	QJs	QTs	Q9s	Q8s	Q7s	Q6s	Q5s	Q4s	Q3s	Q2s
AJo	KJo	QJo	JJ	JTs	J9s	J8s	J7s	J6s	J5s	J4s	J3s	J2s
ATo	KTo	QTo	JTo	TT	T9s	T8s	T7s	T6s	T5s	T4s	T3s	T2s
A9o	K9o	Q9o	J9o	T9o	99	98s	97s	96s	95s	94s	93s	92s
A8o	K8o	Q8o	J8o	T8o	98o	88	87s	86s	85s	84s	83s	82s
A7o	K7o	Q7o	J7o	T7o	97o	87o	77	76s	75s	74s	73s	72s
A6o	K6o	Q6o	J6o	T6o	96o	86o	76o	66	65s	64s	63s	62s
A5o	K5o	Q5o	J5o	T5o	95o	85o	75o	65o	55	54s	53s	52s
A4o	K4o	Q4o	J4o	T4o	94o	84o	74o	64o	54o	44	43s	42s
A3o	K3o	Q3o	J3o	T3o	93o	83o	73o	63o	53o	43o	33	32s
A2o	K2o	Q2o	J2o	T2o	92o	82o	72o	62o	52o	42o	32o	22

 open  mixed (open some of the time)  fold

The shape, seat to seat

UTG → HJ adds every suited ace. Suited Ax blocks AA/AK when you get 3-bet, makes the nut flush, and flops top pair with a good kicker. It's the first hand class that survives five players behind you.

HJ → CO adds every suited king and the offsuit broadways (ATo, KTo, QTo, JTo). One in four hands. This is where a range first feels wide in the hand, and where the button behind you starts 3-betting.

CO → BTN nearly doubles. Every offsuit ace, suited hands down to 53s, offsuit broadways down to T9o. Half the deck. The blinds can't punish it — they're out of position for the whole hand.

BTN → SB gets *tighter* again, despite one player behind. You will be out of position for the rest of the hand. The classic mistake is opening button-wide from the small blind: you don't have the button, you have an out-of-position button.

Sizing: 2.5bb from every seat online; 3bb from the SB (it's a heads-up pot and you want the BB folding). Live, opens run 3–4bb, more over a straddle — the ranges tighten a notch when the open is bigger.

THE DRILL

GTO Wizard → Practice → Starting spot Preflop → Hero fixed → 100 hands per seat, Standard difficulty. Target 95%+ on every seat before anything else in this guide. Two weeks of this is the highest-return study you will ever do.

PART 2

Defending

Someone opened. Your three options are fold, call, 3-bet — and the right mix depends on who opened and whether you'll have position afterwards.

BB vs BTN open defend ≈ 52%

AA	AKs	AQs	AJs	ATs	A9s	A8s	A7s	A6s	A5s	A4s	A3s	A2s
AKo	KK	KQs	KJs	KTs	K9s	K8s	K7s	K6s	K5s	K4s	K3s	K2s
AQo	KQo	QQ	QJs	QTs	Q9s	Q8s	Q7s	Q6s	Q5s	Q4s	Q3s	Q2s
AJo	KJo	QJo	JJ	JTs	J9s	J8s	J7s	J6s	J5s	J4s	J3s	J2s
ATo	KTo	QTo	JTo	TT	T9s	T8s	T7s	T6s	T5s	T4s	T3s	T2s
A9o	K9o	Q9o	J9o	T9o	99	98s	97s	96s	95s	94s	93s	92s
A8o	K8o	Q8o	J8o	T8o	98o	88	87s	86s	85s	84s	83s	82s
A7o	K7o	Q7o	J7o	T7o	97o	87o	77	76s	75s	74s	73s	72s
A6o	K6o	Q6o	J6o	T6o	96o	86o	76o	66	65s	64s	63s	62s
A5o	K5o	Q5o	J5o	T5o	95o	85o	75o	65o	55	54s	53s	52s
A4o	K4o	Q4o	J4o	T4o	94o	84o	74o	64o	54o	44	43s	42s
A3o	K3o	Q3o	J3o	T3o	93o	83o	73o	63o	53o	43o	33	32s
A2o	K2o	Q2o	J2o	T2o	92o	82o	72o	62o	52o	42o	32o	22

3-bet mix 3-bet / call call mix call / fold fold

BB vs UTG open defend ≈ 30%

AA	AKs	AQs	AJs	ATs	A9s	A8s	A7s	A6s	A5s	A4s	A3s	A2s
AKo	KK	KQs	KJs	KTs	K9s	K8s	K7s	K6s	K5s	K4s	K3s	K2s
AQo	KQo	QQ	QJs	QTs	Q9s	Q8s	Q7s	Q6s	Q5s	Q4s	Q3s	Q2s
AJo	KJo	QJo	JJ	JTs	J9s	J8s	J7s	J6s	J5s	J4s	J3s	J2s
ATo	KTo	QTo	JTo	TT	T9s	T8s	T7s	T6s	T5s	T4s	T3s	T2s
A9o	K9o	Q9o	J9o	T9o	99	98s	97s	96s	95s	94s	93s	92s
A8o	K8o	Q8o	J8o	T8o	98o	88	87s	86s	85s	84s	83s	82s
A7o	K7o	Q7o	J7o	T7o	97o	87o	77	76s	75s	74s	73s	72s
A6o	K6o	Q6o	J6o	T6o	96o	86o	76o	66	65s	64s	63s	62s
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A3o	K3o	Q3o	J3o	T3o	93o	83o	73o	63o	53o	43o	33	32s
A2o	K2o	Q2o	J2o	T2o	92o	82o	72o	62o	52o	42o	32o	22

3-bet mix 3-bet / call call mix call / fold fold

SB vs BTN open 3-bet $\approx 13\%$, call small

AA	AKs	AQs	AJs	ATs	A9s	A8s	A7s	A6s	A5s	A4s	A3s	A2s
AKo	KK	KQs	KJs	KTs	K9s	K8s	K7s	K6s	K5s	K4s	K3s	K2s
AQo	KQo	QQ	QJs	QTs	Q9s	Q8s	Q7s	Q6s	Q5s	Q4s	Q3s	Q2s
AJo	KJo	QJo	JJ	JTs	J9s	J8s	J7s	J6s	J5s	J4s	J3s	J2s
ATo	KTo	QTo	JTo	TT	T9s	T8s	T7s	T6s	T5s	T4s	T3s	T2s
A9o	K9o	Q9o	J9o	T9o	99	98s	97s	96s	95s	94s	93s	92s
A8o	K8o	Q8o	J8o	T8o	98o	88	87s	86s	85s	84s	83s	82s
A7o	K7o	Q7o	J7o	T7o	97o	87o	77	76s	75s	74s	73s	72s
A6o	K6o	Q6o	J6o	T6o	96o	86o	76o	66	65s	64s	63s	62s
A5o	K5o	Q5o	J5o	T5o	95o	85o	75o	65o	55	54s	53s	52s
A4o	K4o	Q4o	J4o	T4o	94o	84o	74o	64o	54o	44	43s	42s
A3o	K3o	Q3o	J3o	T3o	93o	83o	73o	63o	53o	43o	33	32s
A2o	K2o	Q2o	J2o	T2o	92o	82o	72o	62o	52o	42o	32o	22

■ 3-bet
 ■ mix 3-bet / call
 ■ call
 ■ mix call / fold
 ■ fold

The three rules the grids encode

1. Wider opener $\rightarrow$ wider defence. BB defends half the deck against the button and under a third against UTG. Not because the price changed — the price is identical — but because UTG's range hits every flop harder and your equity is worth less against it.

2. Out of position $\rightarrow$ 3-bet or fold. The SB grid has almost no plain calls. Calling means playing every street first against the raiser *and* leaving the BB behind you to squeeze. The BB can call wide because it closes the action and gets the discount; the SB has neither.

BTN vs CO open 3-bet $\approx 9\%$, call $\approx 12\%$

AA	AKs	AQs	AJs	ATs	A9s	A8s	A7s	A6s	A5s	A4s	A3s	A2s
AKo	KK	KQs	KJs	KTs	K9s	K8s	K7s	K6s	K5s	K4s	K3s	K2s
AQo	KQo	QQ	QJs	QTs	Q9s	Q8s	Q7s	Q6s	Q5s	Q4s	Q3s	Q2s
AJo	KJo	QJo	JJ	JTs	J9s	J8s	J7s	J6s	J5s	J4s	J3s	J2s
ATo	KTo	QTo	JTo	TT	T9s	T8s	T7s	T6s	T5s	T4s	T3s	T2s
A9o	K9o	Q9o	J9o	T9o	99	98s	97s	96s	95s	94s	93s	92s
A8o	K8o	Q8o	J8o	T8o	98o	88	87s	86s	85s	84s	83s	82s
A7o	K7o	Q7o	J7o	T7o	97o	87o	77	76s	75s	74s	73s	72s
A6o	K6o	Q6o	J6o	T6o	96o	86o	76o	66	65s	64s	63s	62s
A5o	K5o	Q5o	J5o	T5o	95o	85o	75o	65o	55	54s	53s	52s
A4o	K4o	Q4o	J4o	T4o	94o	84o	74o	64o	54o	44	43s	42s
A3o	K3o	Q3o	J3o	T3o	93o	83o	73o	63o	53o	43o	33	32s
A2o	K2o	Q2o	J2o	T2o	92o	82o	72o	62o	52o	42o	32o	22

■ 3-bet
 ■ mix 3-bet / call
 ■ call
 ■ mix call / fold
 ■ fold

3. 3-bets are two hands, not one. The dark cells are value (TT+, AQs+, AK). The striped cells are the bluff half — A5s–A2s above all, because they block AA and AK, make the nut flush and the wheel, and are too weak to call profitably. A 3-bet range without the bluffs is face-up; a 3-bet range without the value can't get paid.

In position (BTN vs CO) you can flat more, because you'll act last every street. But even here the flatting range is narrow — 22–99, suited broadways, a few connectors — hands that play well multiway and don't hate a squeeze.

YOUR MEASURED LEAK LIVES HERE TOO

From the BB the May data showed over-folding turns and rivers with hands like A6o and Q7o that were *correctly* defended preflop.

Defending is two decisions: the call, and then the willingness to see the hand through with what you called with. The grid gets you in.

Parts 4 and 7 keep you in.

3-bets, 4-bets, and facing them

The re-raise war is where the biggest preflop mistakes live, because every step doubles the money.

Sizing — the geometry

SITUATION	SIZE	EXAMPLE	POT GOING TO THE FLOP	SPR
3-bet in position	3× the open	CO opens 2.5, BTN 3-bets to 7.5	~16.5bb	~5.5
3-bet out of position	3.5–4× the open	BTN opens 2.5, BB 3-bets to 10–11	~22bb	~4
Squeeze (open + caller)	4× + 1 per caller	CO 2.5, BTN calls, SB squeezes to 12–13	~28bb	~3
4-bet in position	2.2–2.5× the 3-bet	3-bet to 10, 4-bet to 22–25	~48bb	~1.5
4-bet out of position	~2.2× the 3-bet	3-bet to 7.5, 4-bet to 17–18	~36bb	~2.3
5-bet	All-in	At 100bb there is no 5-bet size except the whole stack	~200bb	0

Out of position you 3-bet bigger because you need the fold more — you don't want to play a big pot first-to-act with a wide range. In position you 3-bet smaller because you're happy to be called.

Facing a 3-bet as the opener

Your open was wide; their 3-bet is narrow. Fold most of it without regret. Continue with three groups:

- **4-bet for value:** QQ+, AK. At 100bb these are happy to get it in.
- **4-bet as a bluff:** A5s–A2s (block AA/AK, fold to a 5-bet cleanly), occasionally KQs or AJo. Roughly one bluff per value hand in position, fewer out of position.
- **Call:** pairs 88–JJ, suited broadways, AQ, the best suited connectors — hands that play well at SPR 4–5 and don't want to be shoved on. Call more in position, less out of position.

The rest — weak offsuit broadways, low suited gappers you opened from the button — fold. They were opens because the blinds fold a lot, not because they can stand a re-raise.

Facing a 4-bet as the 3-bettor

- **5-bet all-in:** KK+, AKs, most AKo. QQ is a jam against a wide 4-bettor and a call against a tight one.
- **Call:** QQ, JJ, AK sometimes, AQs — you have position or a hand that flops well at SPR 1.5. Calling a 4-bet out of position is rare.
- **Fold:** every 3-bet bluff, instantly. A5s did its job when it 3-bet; it never has to do anything else.

THE TRAP

Getting attached to a 3-bet because "I already put in 10bb." The 10bb is gone either way. Ask only: against a 4-betting range of QQ+/AK plus a few bluffs, does my hand win often enough to call 15 more? For everything below JJ the answer is no.

The four piles

Every postflop decision is the same decision: which pile is this hand in right now, against this range, on this card? Sort first, act second.

VALUE Beats most of what calls you. Bet to get paid. The question is size, never whether.	BLUFF / SEMI-BLUFF Loses at showdown but can make better fold — and ideally can improve. Bet.	BLUFF-CATCHER Beats bluffs, loses to value. Never bets for value; the job is call or fold.	GIVE-UP No showdown value, no draw, no fold equity worth chasing. Check and release.
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The piles move every street

K♠J♠ on K♥7♦2♣ is value. Turn A♦ and it's a bluff-catcher — the opponent's aces just passed you. River 5♠ and it's a thin value bet again against a range that checked twice. Same hand, three piles, three streets. The mistake in the May data — checking KJo on A-J-3 — was sorting it as a bluff-catcher when, as the preflop raiser on that board, it's value.

Range, not hand

The piles are sorted *relative to their range*, and the size of each pile is what sets your betting frequency. On a board where 70% of your range is value or a semi-bluff, you bet 70%. That's all a "c-bet frequency" is — the size of the first two piles.

Blockers — why the solver picks the bluffs it picks

A blocker is a card in your hand that makes an opponent's hand less likely. The rule: **bluff with cards that block their calls; call with cards that block their value.**

- Board K♠Q♠7♦4♣, you hold A♠5♣. You block the nut flush — they call less often with flushes because you have the ace of spades. Good bluff.
- Board J♠T♠9♦2♣, you hold K♣Q♣ with no pair. You block KQ, the nut straight — their value is less likely. Good call-down candidate if you had a pair.
- Holding a flush-draw card on the river that *missed* is a good bluff for the opposite reason: you unblock their missed draws, meaning they have more air to fold.

Combos — count them once

Pocket pair	6 combos (3 when one card is on the board = a set)
Suited hand	4 combos
Offsuit hand	12 combos
Any two cards (AK)	16 combos — 4 suited, 12 offsuit
Top pair on A-7-2 with AK-AT	4 hands × 12 = 48 combos. Sets: 3 + 3 + 3 = 9. That's why top pair is 5× as likely as a set — and why you don't fold it to one bet.

The c-bet, by board

You raised, they called, they checked. The most common decision in poker. It has two inputs: whose range the board favours, and who can have the nuts.

BOARD CLASS	EXAMPLE	BET FREQ	SIZE	WHY
Ace-high dry	A♠ 7♥ 2♦	70-80%	33%	You have every Ax, they folded most of theirs. Small bet, near-whole range.
King-high dry	K♠ 8♣ 3♦	60-70%	33%	Same idea, slightly less — BB has more K8s/K3s type hands than A-rag.
Two broadways	K♠ Q♥ 5♦	75-85%	33%	Maximum range advantage. Bet almost everything.
Queen / Jack-high dry	Q♠ 7♣ 3♦	50-60%	33-50%	BB defends lots of Qx and Jx. Still favoured, less so. Some bigger bets.
High paired	K♠ K♥ 6♦	75-85%	33%	Nobody has much; you have more overpairs and Kx. Small and often.
Low paired	6♠ 6♥ 2♦	65-75%	33%	Both ranges miss; your overcards + pairs are ahead. Small bets take it down.
Middle connected	8♠ 7♥ 6♣	30-45%	66%+ or check	BB has the straights, two-pairs, and sets. You check most; when you bet, you bet big and polar.
Low connected	6♠ 5♥ 4♦	25-40%	66%+ or check	Worst board for the raiser. Check your whole middle.
Monotone	J♠ 7♠ 3♠	45-55%	33%	Flushes flatten everyone's equity. Small bets, more checks; the A♠ is the key card.
Two-tone with draws	K♠ T♠ 4♦	55-65%	33-50%	Range advantage but protection matters — some bets grow.

Frequencies are BTN vs BB single-raised pot, 100bb. From earlier seats (UTG, HJ) against the BB, bet *more* on high boards and *less* on low ones — your range is even more top-heavy. Against a caller in position (CO vs BTN), everything drops 15-20 points: out of position you check more of everything.

The two questions, in order

1. Range advantage — whose range has more equity?

High cards favour the raiser (big pairs, broadways). Low and connected cards favour the caller (suited connectors, small pairs). Range advantage → bet small, often.

2. Nut advantage — who can have the very best hands? On 8-7-6 the BB has all the straights and the low sets; the raiser has almost none. Whoever has the nut advantage gets to bet big. Lacking it, you bet small or check, however strong your average hand.

Range advantage sets **frequency**. Nut advantage sets **size**.

Why 33%

A third-pot bet demands the BB defend 75% of their range (MDF) or you profit with any two cards. They can't defend 75% of a range full of 96s and Q4s on A-7-2 — so they fold too much, and every hand in your range makes money betting. The small size is not timid. It's the size that lets your *whole* range bet, which is the most profitable thing a range can do on a board it owns.

Bigger bets are for when you own the nuts and they don't: polarise, charge the draws, fold out their medium hands that a small bet would keep in.

PART 6

Turn and river

The flop is a range decision. The turn is a card decision. The river is a math decision.

Turn — which cards to barrel

Good turns for the flop better

- **Overcards.** Q-7-3 → turn A or K. Your range has more of them; their flop calls (Qx, 7x, draws) just got weaker. Barrel most of your range.
- **Bricks when your flop bet was small.** A-7-2 → turn 4♣. Nothing changed; your small flop bet kept them wide and weak. Continue with value and the best draws; check back medium hands.
- **Cards that pair the top card.** K-8-3 → turn K. Their Kx just became trips, but they have fewer Kx than you. Mixed — bet with your Kx, check more of the air.

Turn sizing: when you barrel after a small flop bet, the turn bet grows — 66–75% pot, or an overbet on boards where you own the nuts and they're capped. The small flop bet was for range; the big turn bet is for polarisation. Medium hands check the turn and go to showdown cheaply.

River — polarisation and the ratio

By the river there are no draws. Every bet is value or bluff, and the size you choose sets exactly how many bluffs you're allowed. The

Bad turns — check more

- **Draw completers.** The third flush card, the card that makes 8-7-6-5. Their calling range was full of draws; now they have the hand. Slow down with everything but the nuts and a few blockers.
- **Low connecting cards.** K-7-2 → turn 6 or 8. The BB's low suited hands pick up equity; your Kx is still ahead but no longer wants a big pot.
- **Cards that pair the middle or bottom.** They called with 7x more than you did.

table is the whole river game:

BET SIZE	BLUFFS AS SHARE OF YOUR BETS	VALUE : BLUFF	CALLER'S MDF	USE IT WHEN
33% pot	20%	4 : 1	75%	Thin value against a capped range; blocking bet out of position
50% pot	25%	3 : 1	67%	Standard value bet, some bluffs
75% pot	30%	2.3 : 1	57%	Polar range, medium nuts
100% pot	33%	2 : 1	50%	Polar, strong nuts
150% pot	37.5%	1.7 : 1	40%	You have the nuts and they're capped
200% pot	40%	1.5 : 1	33%	Extreme nut advantage; their range is all bluff-catchers

bluff share = $s \div (1 + 2s)$ · caller's MDF = $1 \div (1 + s)$ · s = bet as fraction of pot

Reading it as the bettor: if you shove 2× pot with 10 value combos, you're allowed ~7 bluff combos. Pick the 7 with the best blockers. More than that and they should always call; fewer and they should always fold — either way you leaked.

Reading it as the caller: facing a pot-size bet, you need 33% equity to call — so if they bluff more than a third of the time, every bluff-catcher calls; less, every bluff-catcher folds. Against the solver it's exactly a third and you're indifferent. Against a pool that under-bluffs rivers (they do, badly) you fold more. That's the exploit layer, Part 10.

OVERBETS — WHEN THE POT ISN'T BIG ENOUGH

An overbet says: my range is only nuts and air, and yours can't have the nuts. It's correct when the board runs out so that *their* range is capped (they'd have raised the flop with the strong hands) and yours isn't. The classic: you raised, they called, board A-K-x-x — they have no AA/KK, you do. Overbet with sets and two-pair, balance with the missed draws that block their calls.

The May leak showed up here: A♥5♠ checking a turn the solver pots 84% of the time, 98s checking a flop it overbets 97%. Those aren't bets that need courage. They're bets the range structure already paid for.

PART 7

Playing the caller

Half your hands you're the one who called. Out of position, condensed range, no initiative. This is where the money leaks, and where the solver plays very differently from the pool.

Facing the c-bet — MDF is a floor, not a target

MDF says: against a 33% bet, continue with 75% or they profit with any two. But MDF assumes you realise your equity, and out of position you don't. On A-7-2 against a BTN 33% bet the solver defends closer to 55–60% — it folds hands MDF says to keep, because those hands lose more on later streets than they win now.

What continues: any pair, any ace, the backdoor draws that can bluff later (K♠Q♠ on A♠7♥2♦), and gutshots. What folds: offsuit junk that missed with no backdoors. Q9o on A-7-2 is a fold to a third-pot bet, and that's not weak — it's the solution.

The order of the rule: **defend at MDF on boards that favour you; defend below it on boards that favour them.**

The check-raise — your main weapon

Out of position you can't bet first, but you can raise. A check-raise range is built like a 3-bet range: value + draws + a few blockers.

- **Value:** sets, two pair, straights, top pair on boards where top pair is the nuts (7-6-2, you have 77).
- **Semi-bluffs:** flush draws, open-enders, combo draws — hands that win when they fold *and* when they call.
- **Where:** most on boards that favour the caller (low, connected, paired) — that's where you have the nut advantage. Least on A-high boards, where you almost never have the nuts.
- **How often:** 10–15% of the time you face a c-bet on a favourable board. The pool does it 3–5%. That gap is where the solver prints.

Donk bets — rare, and real

Betting into the raiser before they act. The solver does it on boards where the caller's range is far ahead — 6-5-4, 8-7-6, 5-5-3 — because waiting for a c-bet that isn't coming wastes value. Never on A-high or K-high boards. If you can't name the nut advantage you hold, don't donk.

Probe bets — when they check back

They raised, you called, they *didn't* c-bet. Their range just told you something: it's capped — mostly medium hands and give-ups. On the turn you bet ("probe") often, 50–70% of your range, medium size. Bet your pairs for value, your draws as semi-bluffs, and some air. Check your strongest hands sometimes to trap. They gave up the initiative; take it.

The float

Calling a flop bet with nothing, in position, planning to bet when they check the turn. Works because a c-bettor who checks the turn is usually giving up. Requires position and a hand with *something* — a backdoor draw, an overcard — never pure air.

YOUR LEAK, NAMED IN SOLVER TERMS

May: A6o and Q7o as worst hands — defended correctly, then folded turns and rivers the solver continues. In pile language: you sorted top-pair-weak-kicker into **give-up** when it's a **bluff-catcher**. A bluff-catcher's job isn't to win a lot. It's to call exactly often enough that they can't bluff you for free. Fold every one and every bluff they ever make is profitable.

PART 8

3-bet pots

Same game, quarter of the stack. Everything compresses: ranges, streets, decisions.

What SPR does to your hand

SPR	POT TYPE	COMMIT WITH	POT-CONTROL
≤ 3	4-bet pots, squeezes	Any pair, any ace-high on A-high boards	Nothing — you're mostly all-in by the turn
3–5	3-bet pots	Top pair good kicker, overpairs	Second pair, weak top pair
5–8	Small 3-bet pots, live SRPs	Two pair+, strong top pair on dry boards	Top pair on wet boards
10+	Single-raised pots at 100bb	Sets, straights, flushes	One pair, always

The rule: **the smaller the SPR, the weaker the hand you stack off with**. QQ on J-7-2 in a 3-bet pot is a stack-off. The same hand in a single-raised pot is a hand you bet twice and think hard about on the river.

As the 3-bettor, out of position (BB vs BTN)

Your range is strong and condensed; theirs is capped (they'd have 4-bet the top). C-bet **small, often** — 25–33%, 65–80% of the time on most boards, including many low ones. Check the boards that hit their calling range hardest (middle connected) and the ones where they have more nutted hands than you.

As the 3-bettor, in position (BTN vs CO)

They check to you. Bet 50–70% of the time at 33–50%. Your range advantage is real but they have position denied and a range full of pairs — don't bet air into it on low boards. When they lead into you (donk) in a 3-bet pot, that's usually strong; respect it.

As the caller of a 3-bet

You called with pairs, suited broadways, connectors. Your job on the flop: **find your commit threshold before the flop comes**. At SPR 4, top pair with a good kicker calls down; second pair check-calls once and folds turn pressure; a set raises. Decide that in advance, then execute on the card.

In position, raise the small c-bet with your sets and strong draws more than in single-raised pots — the pot is big enough that a raise puts them to an all-in decision, and their range has a lot of AK-high that can't call.

THE 3-BET POT IN ONE LINE

Small bets, high frequency, early commitment. There are two streets of real decision instead of three, so the flop decision *is* the hand.

PART 9

Mixing — how to actually do it

The solver bets K♠J♠ 60% and checks it 40%. You're a human. Here's how to be 60/40 without a coin.

Why mixes exist at all

At an **indifference point** two actions have the same EV for that hand. The solver mixes not because either is better for the hand but because the *mix* makes the opponent's counter-strategy impossible — bet 100% and they raise more; check 100% and they bet more. The mix is defence for the range, paid for by hands that don't care.

Which means: **getting the mix wrong costs almost nothing per hand**. Grouped difficulty forgives it for exactly that reason. What costs money is a *pure* action played the wrong way — a 95% bet that you check. Master purity first, mix second.

Simplify on purpose

GTO Wizard's "simplified" solutions pick one bet size per node instead of three, at a cost of 0.5–1% of pot EV. A human executing one size at 95% accuracy beats a human executing three sizes at 80%. Pick your simplifications and commit: **33% flop, 66% turn, 75% or all-in river** covers most spots at almost no theoretical cost.

Three ways to randomise

- Suits** Bet with the hearts and diamonds combos, check with spades and clubs = 50%. Bet only with the heart combo = 25%. Free, invisible, and the solver often mixes by suit anyway because of blockers.
- Blockers** Bluff when you hold the card that blocks their strongest calls; give up when you don't. Correlates with the solver's own logic.
- Clock** Seconds on the hand clock or the last digit of the pot. Only if the first two don't apply.

Reading Standard difficulty

Standard grades the exact action against exact frequencies, so a mixed hand you "get wrong" scores as an Inaccuracy — small EV loss. Read your results by category: **Inaccuracies are noise. Wrong and Blunder are signal**. A 90% GTOW Score with 20 Inaccuracies and 0 Blunders is a better player than 92% with 3 Blunders.

THE HABIT

When the solution shows a mix and you took the minority action, don't correct. When it shows a pure action and you did the other thing, stop and write one sentence about why the solver is pure there. Those sentences are the study.

PART 10

The exploit layer, and live play

GTO is the baseline you never lose money from. Exploits are how you win more than the baseline against people who aren't playing it. Sequence matters: baseline first, deviations second, and every deviation is one notch, not a new strategy.

What low-stakes pools actually do

POOL LEAK	WHAT IT LOOKS LIKE	ONE-NOTCH EXPLOIT
Over-fold to c-bets	BB folds 50%+ to a third-pot bet	C-bet more air on dry boards; keep the size small
Under-bluff rivers	Triple-barrels are value ~80% of the time	Fold more bluff-catchers on the river; call turns, fold rivers

Over-fold turns	Call flop, fold turn with anything but top pair	Double-barrel more, especially overcards
Under-3-bet	3-bet 4–6% instead of 9–13%	Open wider from late seats; flat their 3-bets less (they're value)
Rarely check-raise	Check-call = medium strength, nearly always	Value-bet thinner into check-callers; don't bluff them off pairs
Over-call flops	Any pair, any draw, any ace-high	Bet bigger for value on the flop; bluff less on the flop, more later
Over-fold to overbets	Overbet = nuts, in their heads	Overbet-bluff rivers where you hold the right blockers
Live: limp too much	Three limpers by the time it reaches you	Isolate big (5–6bb + 1 per limper); limped pots are weak, capped pools
Live: BB too tight	Folds 70%+ to steals	Open the full BTN range and then some

How to deviate without losing the baseline

1. Know the GTO action cold. If you don't, you're not exploiting, you're guessing.
2. Confirm the leak with a sample — one showdown isn't a tendency. A read needs 5–10 instances or a HUD stat over hundreds of hands.
3. Move one notch: bluff a bit more, call a bit less. Not "this player never bluffs so I fold everything."
4. Return to baseline the moment they adjust, or the moment you're unsure. The baseline is where you can't be punished.

Maximum exploit exposes you. Minimum exploit pays. A player who folds 100% of rivers against a suspected non-bluffer gets destroyed the first time they're wrong. A player who folds 45% instead of 33% gains a little on every river and is never badly wrong.

Multiway — the rules collapse to one

The more players in the pot, the closer everyone should be to value-only. C-bet frequencies drop by a third or more. Bluff-catching one pair three ways is a leak. Whoever has the nut advantage bets; everyone else checks. The nuts get bigger — a straight is not a lock against three players who each called two streets.

Live — what changes

Opens	3–4bb, 5+ over a straddle. Ranges tighten one seat's worth: play your CO range from the BTN.
Multiway	Half the pots go 3+ ways. Part 10's multiway rules apply constantly: value heavier, bluffs rarer, c-bets rarer.
Stack depth	200bb+ is normal. SPR is high, so one pair is weaker and sets/straights/flushes matter more. Small pairs and suited connectors go up in value.
Limpers	Isolate them. A limp-call range is capped and weak; a big iso-raise with position is the most profitable live line there is.
Rake	Live rake is a drop per pot, capped — it punishes small pots. Play fewer marginal hands, win bigger pots.
Tells	Bet-sizing tells beat physical tells ten to one. Min-raises and oddly small bets are weakness far more often than strength. Sudden big bets from passive players are value.

Variance — the numbers

Your standard deviation at 6-max is about 90 bb per 100 hands.
Your winrate, if you're good, is 5. Read that again: the noise is eighteen times the signal.

TRUE WINRATE CHANCE OF BEING A NET LOSER AFTER 10,000 HANDS AFTER 50,000 AFTER 100,000				EXPECTED WORST DOWNSWING OVER 500K HANDS
3 bb/100	37%	23%	15%	~35-45 buy-ins
5 bb/100	29%	11%	4%	~25-30 buy-ins
8 bb/100	19%	2%	<1%	~15-20 buy-ins

$$P(\text{losing after } N \text{ hands}) = \Phi\left(\frac{-WR \times \sqrt{(N/100)} \div SD}{SD} \right) \cdot SD \approx 90 \text{ bb/100 at 6-max, } \approx 100+ \text{ live}$$

A winning player at 5 bb/100 — a genuinely good player at low stakes — has a **three in ten** chance of being down money after 10,000 hands. That's a month of serious online volume, or a year of live play. Results over any sample you'll actually experience at the table are mostly noise.

This is why the EV-loss number matters and the pot you won doesn't. EV-loss against the solver has almost no variance — you either took the right action or you didn't. It's the only score that tells the truth on a 100-hand sample.

WHERE THIS MEETS YOUR PATTERN

Your documented failure across chess, trading and running is the same move: the number becomes the identity, and then you protect the number. In poker that move has a name — **variance aversion** — and it looks exactly like the May data: eight of nine mistakes in the passive direction, the quiet action that protects the stack from the swing. GTO doesn't have a passive bias because it doesn't have a stack to protect. It has a range to play. Every time you check a bet the range structure already paid for, you're paying the solver a tax to feel safer.

The fix isn't courage. It's **scoring the decision, not the result** — sealed at the moment you act, graded by EV-loss at the end of the set, never mid-hand. You already built this for trading. Same instrument.

The road to 90–95%

Define the target in numbers or it's a mood. Then build the loop that moves the numbers.

THE TARGET, STATED

GTOW Score $\geq 90\%$ on Standard difficulty, across all six seats, in single-raised and 3-bet pots, with EV-loss under 1 bb/100 over any rolling 1,000 hands per spot. Blunders under 1 per 100 hands. That is what "90–95% GTO" means operationally. Professional online regs run 1–2 bb/100 EV-loss against the solver; you're aiming for the same neighbourhood.

PHASE	WINDOW	THE WORK	EXIT CRITERION
1 · Preflop by heart	now → month 3	Daily set as built. Add a 100-hand preflop-only drill per seat. Memorise the nine grids in Parts 1–2 until you could draw them.	95%+ preflop, every seat, Standard

2 · Single-raised pots	month 3 → 9	Seats graduate to Standard per the daily set rules. Add spot drills: BTN vs BB (both seats), CO vs BB, SB vs BB, UTG vs BB. Board-family drills on your leak textures.	85% → 90% Standard on SRPs
3 · 3-bet pots	month 9 → 15	Graduated seats become their 3-bet-pot version. Both sides: as 3-bettor IP/OOP, as caller IP/OOP. Squeeze pots last.	90% Standard across pot types
4 · Exploit + live	year 2	Live volume. Hand-history review in Analyze. Pool-tendency notes per venue. One-notch deviations, logged and checked against baseline.	92-95% Standard; positive live sample over 500+ hours

Maintenance	forever	One set per day. One aggregate-report review per week. Decay is real — a spot untouched for 60 days drops 5 points.	Hold
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The weekly study loop

1. **Drill** — the daily set, screenshots in.
2. **Tag** — every Wrong and Blunder gets one line: hand class × street × direction. Not the Inaccuracies.
3. **Study** — open the exact node in GTO Wizard's Study tab. Look at the *whole range's* strategy, not your hand. Ask: what does the solver do with every hand like mine here, and why?
4. **Write the rule** — one sentence. "As BTN on A-high dry boards vs BB, bet 33% with the whole range except the weakest offsuit junk."
5. **Re-drill** — same spot, hand filter on that class, until Best ≥ 90%. Then it's closed.

Forty-five minutes a day. The drill is twenty. The tag-and-study is twenty-five, and it's the part that compounds.

The four GTO Wizard tools, and what each is for

Practice	Reps. Where the daily set lives. Grouped to learn a spot, Standard to prove it.
Study	The solution browser. Where you answer "why." Use the aggregate reports — they show c-bet frequency across all 1,755 flops at once, sorted by texture. That table in Part 5 is a compressed aggregate report; the real one is in there.
Analyze	Upload real hand histories (online) or enter live hands by hand. It grades them against the solver. This is the bridge from drills to the table.
Range builder	Node-locking: tell the solver an opponent over-folds, see how the exploit changes. Phase 4 only. Before then it teaches bad habits.

TWO TELLS THAT YOU'RE STUDYING WRONG

Reading solutions without drilling — knowledge without reps. Drilling without tagging — reps without knowledge. The May data had 300 hands and one leak list. That ratio is right. Keep it.

PART 13

Poker → trading

You said this is helping your trading. Here's the map of what transfers, so you can transfer it on purpose.

POKER	TRADING	WHAT IT TRAINS
Range, not hand	Setup grade, not this trade's outcome	Judging the class of situation, not the instance
EV-loss vs the solver	Coherence score vs the IC rules	A score for the decision that has no variance
Sealed action by range	Sealed verdict at entry	Deciding once, before the result exists
Bluff : value ratio by size	Required win rate by R-multiple — at 2.5R you need 29%	Structure sets the frequency you need, not confidence
MDF	Predefined invalidation, not the scary candle	Not folding a position because it moved
Pile sorting each street	Re-grading the trade at each level	Same hand, new card, new pile — no attachment
Variance table	Your A-tier at 50% / 2.5R	29% chance a 5 bb/100 winner is down after 10k hands; a 50% trader has 3% odds of five straight losses in any given five. Both are normal.
Passive leak	Stops to breakeven; not pressing winners	Protecting the number instead of playing the range
Blockers	Confluence that changes the distribution	Information that shifts the odds, not information that feels good
One-notch exploit	Session-context adjustments, logged	Deviating from baseline by a step, with a record

What doesn't transfer

The chess instinct. Chess rewards certainty; study the line, play it, the board confirms. Poker and trading both reward surrender to distribution — and your chess-trained reflex when things go wrong is to grip harder, study more, control more. In poker that shows up as passivity (protect the stack). In trading it shows up as defending the funded account. Same wire. Poker is the cheaper place to rewire it.

Why poker is the better training ground

Feedback in poker is **fast and clean**: a solver tells you within seconds whether the decision was right, independent of the result. Trading's feedback is slow, noisy, and contaminated by P&L. Every hour of poker drilling is an hour of practising "grade the decision, ignore the outcome" with a perfect referee. Then you walk to the desk with the reflex already warm.

Glossary, level 2

Terms that didn't exist in the first guide, or that now mean more.

Aggregate report

GTO Wizard table showing strategy across all flops at once — frequencies by texture. The fastest way to learn a spot's shape.

Bet-fold / bet-call

Your plan if raised. Every bet should have one before you make it.

Blocking bet

A small river bet out of position to set the price before they can bet big.

Capped

A range that can't contain the strongest hands because those would have acted differently earlier.

Commit threshold

The weakest hand you'll stack off with at a given SPR. Decide before the flop.

Condensed

A range that's mostly medium — few nuts, little air. The caller's range on most flops.

Delayed c-bet

Checking the flop as the raiser, betting the turn. Often with medium hands that wanted a safe card.

Donk bet

The caller bets into the raiser. Correct only on boards the caller owns.

Equity realisation

How much of your raw equity you actually collect. Position raises it; being OOP with a weak hand lowers it. Why MDF is a floor.

Float

Call a flop bet with little, in position, to bet the turn when they check.

Geometric sizing

Choosing bet sizes so the stack goes in over the remaining streets in equal pot fractions. What "the solver overbets the river" usually is.

Indifference

When two actions have equal EV. Where mixes live. Getting it "wrong" costs nothing.

Iso-raise

Raising over limpers to play one of them heads-up with position.

Linear / merged range

Top-down: the best X% of hands. Opens and small bets.

Max / min exploit

Full deviation vs one notch. Min pays and is safe; max is how you lose to a reg who notices.

Node

One decision point in the game tree — this board, this action sequence, your turn. Solutions are per node.

Node-lock

Forcing an opponent's strategy in the solver to see the exploit. Phase 4 tool.

Nut advantage

Who can hold the very strongest hands. Sets bet size.

Polarised range

Nuts and air, nothing in between. Big bets are polarised.

Probe

The caller bets the turn after the raiser checked back the flop.

Range advantage

Whose range has more total equity on this board. Sets bet frequency.

RNG

Random number generator; the honest way to mix. Suits and blockers are the practical way.

Simplified strategy

One size per node instead of several. Costs ~0.5–1% EV, gains execution.

Squeeze

3-bet after an open and a call. Bigger, because two players must fold.

SPR

Stack-to-pot ratio going to the flop. The single number that decides how strong "strong" is.

Stack off

Put the whole stack in.

Standard deviation (bb/100)

Your swing per 100 hands. ~90 at 6-max. The reason results lie.

Thin value

Betting a hand that's only slightly ahead of what calls. Where winrate hides.

Unblocker

Holding cards that make their *folding* hands more likely — a missed draw is a good river bluff because you unblock their missed draws.

x/r, x/c, x/f

Check-raise, check-call, check-fold. The three lines out of position.