



JEOPARDY! WAGERING STRATEGY

A plain-English guide to smarter Daily Double and Final Jeopardy bets

Built for 3-player games, with 2-player and 1-player play as reduced cases

Two moments decide the game

Everything else is trivia and buzzer speed. These two moments are where a dollar amount, not a fact, decides who wins.



Daily Double

Found mid-game, while a category is in play. You choose the wager before you know the exact clue.

The decision affects the rest of the game, not just the next 30 seconds -- more clues, maybe another Daily Double, then Final Jeopardy after that.



Final Jeopardy

The last clue of the game. Every player wagers, then answers the same category.

A single terminal event -- the math here is fully determined, with a clean guarantee-based answer available before you even see the clue.

Two different questions, not one

This project treats them as two separate tools. Blending them into one answer hides which one you actually asked for.

SAFE BET

“What wager can't hurt me if I'm right?”

A guarantee against the worst realistic case. Needs no estimate of your odds of being correct.

SMART BET

“Given how sure I really am, what wins most often?”

A probability-weighted decision. Uses your confidence and simulated rivals based on real games.

Safe Bet: the guarantee

Assume every rival makes their single most threatening legal play: bet everything, answer correctly.

You

\$12,000

Rival 1

\$8,000

Rival 2

\$6,000

Rival 1's worst case: \$8,000 doubled = \$16,000. That's the biggest threat -- bigger than Rival 2's \$12,000 -- so it's the one you must cover.

SAFE BET RECOMMENDS

\$4,001

$\$12,000 + \$4,001 = \$16,001$ -- one dollar past the worst case

Smart Bet: a tie is not a win

Example: you lead with \$10,000. Your rivals have \$8,000 and \$3,400. You are 89% sure of your answer.

BEFORE: A TIE COUNTED AS A WIN

\$6,000

old Smart Bet: a bet to tie

If you and second place both double up, you finish level. The old tool used the old co-champion rule and called it a win.

NOW: A TIE IS HALF A WIN

\$6,599

new Smart Bet: wins outright, keeps a cushion

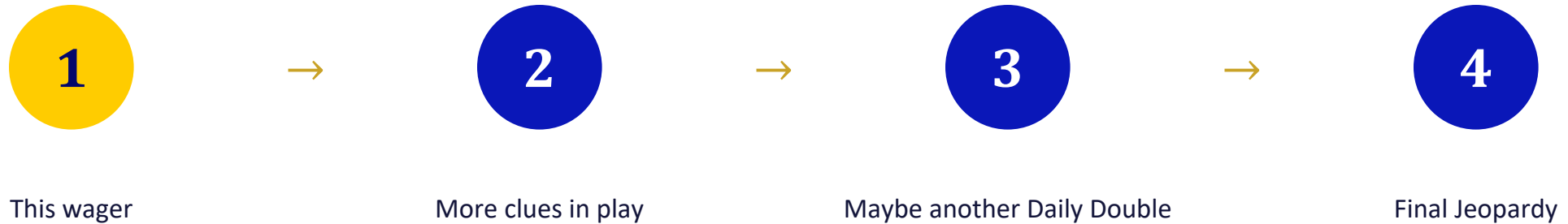
A tie now goes to a tiebreaker clue, so the tool bets enough to beat second place. If you miss, your \$3,401 stays above third's \$3,400.

A rule worth knowing: never settle for a tie when one more dollar wins.

A two-way tie for first now counts as half a win, and a three-way tie as a third. Nobody wins at \$0.

Daily Double: a different kind of bet

A Final Jeopardy wager affects the next 30 seconds. A Daily Double wager affects everything still to come.



There's no clean formula for that many moving parts. So the engine simulates the rest of the game forward, thousands of times, for every candidate wager -- and recommends whichever wins most often.

The next slide shows why that simulation has to be read carefully.

A 12x swing that shouldn't happen

Same scores. Confidence moved two points. The old engine's recommendation should not have moved this much.

42% confidence

\$350

44% confidence

\$4,200

BEFORE THE FIX -- a real bug, not a hypothetical

AFTER THE FIX -- both confidence levels agree

One answer

The engine now tracks each estimate's statistical uncertainty, and only trusts a difference it can actually detect.

Rivals that play like today's contestants

Smart Bet's rivals now play like contestants from recent seasons, not like the 1990s-2012 games in IBM's older study.

Leader

Covers

Second place

Mixes it up

Third place

No pattern

The leader almost always bets to cover second place. Second place mixes all-in, keeping third out, overtaking and the small "two-thirds" bet -- that mix still comes from IBM's older study. Third place bets with no pattern.

Modern

Rivals play like recent seasons

They hunt Daily Doubles and bet them hard. Leaders are right more often. A hard clue is hard for everyone.

Try it yourself

One file, opens in any browser, no install and no internet needed: [app/index.html](#)



Daily Double

Enter scores, board money, and confidence -- get a wager and a win-probability curve.



Final Jeopardy

Compare Safe Bet and Smart Bet side by side for any 1-, 2-, or 3-player game.



Quiz Me

Random scenarios, graded A+ to D against the optimal play, with streaks.



How This Works

A plain-language explanation of every tier, linked back to the full docs.

What's proven, what's assumed

Told plainly, on purpose -- the goal is a tool you can trust precisely as much as it's earned.

SOLID

- Safe Bet's guarantee math -- fully determined, no confidence input needed
- Smart Bet's exact win-probability math, for a given opponent model
- The Daily Double engine's statistical selection -- no longer fooled by simulation noise
- Automated tests, hand-derived where possible -- not just checked against the code's own output

ASSUMED

- How rivals bet and answer -- matched to recent seasons; second place's mix still from IBM's older study
- Regular-clue and future-Daily-Double dynamics -- simplified, ignores buzzer competition
- The browser app is a hand-written copy of the engine -- compared against it by an automated script

Get started

- 1 Open app/index.html in any browser
- 2 Pick Daily Double or Final Jeopardy
- 3 Enter scores and your confidence
- 4 Get a recommendation, or drill it in Quiz Me



Want the full math?

Every claim on these slides is proven or cited in the white paper -- worked examples, full derivations, and references.

Read the white paper

github.com/willhoop/jeopardy-wagering/blob/main/docs/white-paper.md