CASINO GAMES HANDBOOK

Rules, Payouts & Common Betting Systems



03 Roulette

Standard roulette

The objective is to predict the pocket where the ball stops. Bets are placed before the dealer closes betting. The result settles all wagers on that spin. European roulette usually has 37 pockets, numbered 0 through 36. American double-zero roulette adds 00 for 38 pockets; triple-zero adds another zero pocket for 39. Zero pockets are neither red nor black and are excluded from the ordinary dozens, columns, odd-even, and high-low bets. [R03]

Wager	Numbers covered	Common profit payout
Straight up	One	35 to 1
Split	Two adjacent layout numbers	17 to 1
Street	Three in one row	11 to 1
Corner	Four meeting at a corner	8 to 1
Six line	Two adjacent rows of three	5 to 1
Dozen or column	Twelve	2 to 1
Red or black, odd or even, low or high	Eighteen	1 to 1
American five-number basket	0, 00, 1, 2, 3	6 to 1

Example. You place $5 on 17 and $5 on black. If 17 wins, the straight-up bet earns $175 and the black bet earns $5. Your $10 stake is also returned, making $190 returned and $180 net profit. If a different black number wins, the black profit offsets the lost straight-up stake, so the net result is zero.

What the extra zeros cost

For the standard payouts above, most bets have edges of 1/37 = 2.70% on single-zero, 2/38 = 5.26% on double-zero, and 3/39 = 7.69% on triple-zero. The American basket is worse than ordinary double-zero bets: (5 x 6 - 33)/38 = -3/38, an edge of 7.89%. These calculations assume fair pockets and no special rebates.

Covering more numbers raises the chance that at least one chip wins, but usually adds more losing chips. A player who stakes one unit on each of the 37 numbers risks 37 units and receives 36 units back every spin. The certainty is a one-unit loss.

French rules and announced bets

Some single-zero games offer **la partage**, returning half of an even-money stake when zero appears. The edge on those eligible bets becomes 1/74 = 1.35%. **En prison** can instead hold the stake for a later result; a successful release returns the stake without a profit. Zero-repeat handling must be checked. Do not assume either rule applies merely because a table is described as European or French. [R92]

Announced bets such as voisins du zero, tiers du cylindre, orphelins, jeu zero, and neighbors distribute chips among wheel sectors or specified numbers. They are packages of component bets, not independent probability advantages. Ask the dealer for the required number of chips and the exact layout before making one. [R92]

Electronic and multiplier roulette

An electronic terminal may settle a physical wheel, an automated wheel, or an RNG result. Read the rules rather than inferring the method from the animation. Live dealer roulette changes the interface, not the ordinary wheel arithmetic.

Multiplier games, including Lightning Roulette, may enhance selected straight-up outcomes while reducing ordinary straight-up payouts or changing other terms. Their advertised maximum multiplier is not the payout on every number bet. Use the particular game's published rules and RTP; ordinary roulette calculations cannot simply be transplanted. [R41]

Decision point. Roulette has bet selection and stake selection, but no hit, stand, or draw decision after betting closes. A staking progression changes exposure; it does not improve a fair wheel's pocket probabilities.

25 Systems that increase after losses

Martingale

Start with one unit. After every loss, double the stake. After a win, return to one unit. At exact even money, an eventual win recovers previous losses in that uninterrupted sequence and earns one starting unit. This algebra assumes the required next stake can actually be placed. [R86]

Attempt	Stake with a 5 dollar unit	Total lost if this attempt loses
1	$5	$5
2	$10	$15
3	$20	$35
4	$40	$75
5	$80	$155
6	$160	$315
7	$320	$635
8	$640	$1,275

At a $200 table maximum, the seventh stake is impossible. Having enough cash for the sixth wager does not mean having enough to continue indefinitely. Starting with a smaller unit delays the limit; it does not eliminate it.

A complete capped example. Bet a single-zero roulette even-money outcome, starting at $5, and stop the cycle on the first win or after six losses. The loss probability per spin is 19/37. Six losses occur with probability (19/37)^6 = 1.8336%. Every successful cycle earns $5; a failed cycle loses $315. Expected cycle profit is $5 x (1-0.018336) - $315 x 0.018336 = about **-$0.87**. The system wins approximately 98.17% of these cycles and still loses in expectation.

The expected action in that cycle is approximately $32.10. Applying roulette's 1/37 edge produces the same expected loss, providing an independent check. Cycles have different lengths, so a per-cycle figure should not be compared directly with a per-spin figure.

Commission and unequal payouts break the simple recovery identity. After losing $10 on baccarat Banker, a $20 Banker win with 5% commission earns $19, leaving $9 cycle profit rather than $10. Changing the formula to recover commission increases required stakes further.

Grand Martingale

A common Grand Martingale increases the next stake to twice the previous stake plus one starting unit. Starting at one unit gives 1, 3, 7, 15, 31, and 63 after successive losses. One eventual even-money win covers prior losses and earns a larger amount as the sequence lengthens. The required capital grows faster than ordinary Martingale.