Bill Split Calculator

Split a bill with tax and tip calculated on the same base. Round the total once to cents, then assign one extra cent to the first remainder-count people; the cent shares add exactly to the rounded bill.

Formula: total cents = roundHalfUp(bill * (1 + tip/100 + tax/100) * 100); lower cents = floor(total cents/people); remainder = total cents mod people

INPUTS AND EXAMPLE VALUES

Bill before tax and tip: 100

Tip (%) of base bill: 15

Tax (%) of base bill: 5

People: 4

CHECK THE DEFAULT EXAMPLE

Per person (unrounded mathematical share): 30

Total (rounded once to cents): 120

People paying higher share (first in list): 0

Higher share: 30

People paying lower share: 4

Lower share: 30

LIMITS AND CONVENTIONS

Equal shares only, with at most a one-cent difference; first-in-list assignment is a deterministic convention, not random selection.

Totals round once to two decimals, with midpoint upward for nonnegative amounts. The total in cents must fit the safe integer range; currencies with other minor units need a different model.

METHOD AND SOURCES

https://azhanmh.com/guides/tools/bill-split-calculator

OpenStax - Understanding percent: https://openstax.org/books/prealgebra-2e/pages/6-1-understand-percent

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Display precision is for reporting; keep unrounded values for later calculations. Verify units and conventions. This reference does not replace institution, employer or network rules.