Fraction Calculator

Add, subtract, multiply or divide two integer fractions. The rational result is reduced exactly using integer arithmetic; a decimal approximation is also displayed.

Formula: a/b + c/d = (ad + bc)/bd; reduced numerator = numerator / gcd(numerator, denominator)

INPUTS AND EXAMPLE VALUES

First numerator: 1

First denominator: 2

Operation: +; choices: + (+), - (-), * (*), / (/)

Second numerator: 1

Second denominator: 3

CHECK THE DEFAULT EXAMPLE

Simplified fraction: 5/6

Decimal: 0.833333333333

LIMITS AND CONVENTIONS

Fractional numerators or denominators are rejected rather than truncated.

Denominators and a divisor fraction must be nonzero; decimal output is approximate.

METHOD AND SOURCES

https://azhanmh.com/guides/tools/fraction-calculator

OpenStax - Prealgebra 2e: numbers, fractions and percentages: https://openstax.org/books/prealgebra-2e/pages/1-introduction

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.