thingies and doodads

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Misc algebra

Partial fractions

Rational expressions can be split into the sum of two rational expressions. Use the following to solve for A and B.

$$\frac{x+7}{(x-3)(x+2)} = \frac{A}{x-3} + \frac{B}{x-2}$$
$$x+7 = A(x+2) + B(x-3)$$

Quadratic formula

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Factoring quadratics

Completing the square

Factoring cubics

Trig identities

Integration procedures

Integration by parts

Trig integrals

Standard integrals

Misc calculus

Taylor series

Convergence tests

Optimization

Definition 1.1 (Lagrange multipliers)**.**