

Free Online Scientific Calculator & Step-by-Step Math Solver

● Live Scientific Calculator

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CODE

$2x^2 + 5x - 12 = 0$

|

$\sin(45^\circ) + \sqrt{144}$

12.70710678

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CLICK ANYWHERE ON THIS CALCULATOR TO OPEN LIVE TOOL →

Instant Online Access • No Registration • 100% Free Forever

Real-time evaluations for algebra, trigonometry, powers, fractions, and logarithms with zero latency.

Lightweight and fully functional on school Chromebooks, iPads, MacBooks, and Android devices.

Includes Quadratic Solvers, Calculus Derivatives, Unit Converters, and Physics tools.

Algebra, Factoring & Quadratic Solver Reference

Use this cheat sheet to master algebra homework. Verify your calculations instantly on [CalcSolver](#).

The Quadratic Formula (Standard Form: $ax^2 + bx + c = 0$)

Essential

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

Solve Online →

$\Delta = b^2 - 4ac > 0$
 2 Distinct Real Roots

$\Delta = b^2 - 4ac = 0$
 1 Real Repeated Root

$\Delta = b^2 - 4ac < 0$
 2 Complex / Imaginary

Laws of Exponents & Radicals

Product Rule

Powers

$$a^m \cdot a^n = a^{m+n}$$

Quotient Rule

Powers

$$a^m / a^n = a^{m-n}$$

Power of a Power

Powers

$$(a^m)^n = a^{mn}$$

Negative Exponent

Inversion

$$a^{-n} = 1 / a^n$$

Fractional Exponent

Roots

$$a^{(m/n)} = \sqrt[n]{a^m}$$

Zero Exponent Rule

Identity

$$a^0 = 1 \quad (\text{for } a \neq 0)$$

Logarithm Properties (Base b & Natural ln)

Log Product Law

$$\log_b(xy) = \log_b(x) + \log_b(y)$$

Log Quotient Law

$$\log_b(x/y) = \log_b(x) - \log_b(y)$$

Log Power Law

$$\log_b(x^k) = k \cdot \log_b(x)$$

Change of Base Formula

$$\log_b(x) = \ln(x) / \ln(b)$$

Factoring & Polynomial Expansions

Special Product Name	Factored Form	Expanded Polynomial Form
Difference of Two Squares	$(a - b)(a + b)$	$a^2 - b^2$
Square of a Binomial (Sum)	$(a + b)^2$	$a^2 + 2ab + b^2$
Square of a Binomial (Diff)	$(a - b)^2$	$a^2 - 2ab + b^2$
Sum of Two Cubes	$(a + b)(a^2 - ab + b^2)$	$a^3 + b^3$
Difference of Two Cubes	$(a - b)(a^2 + ab + b^2)$	$a^3 - b^3$

Need to factor an equation? Solve it step-by-step on CalcSolver

Open Solver →

Trigonometry & Calculus Quick Reference

Complete formulas for SOH-CAH-TOA, Unit Circle exact values, Derivatives, and Integrals.

Trigonometric Ratios & Core Identities

SOH - Sine Ratio

$\sin(\theta) = \text{Opposite} / \text{Hypotenuse}$

CAH - Cosine Ratio

$\cos(\theta) = \text{Adjacent} / \text{Hypotenuse}$

TOA - Tangent Ratio

$\tan(\theta) = \text{Opposite} / \text{Adjacent}$

Pythagorean Identity #1

$\sin^2(\theta) + \cos^2(\theta) = 1$

Pythagorean Identity #2

$1 + \tan^2(\theta) = \sec^2(\theta)$

Pythagorean Identity #3

$1 + \cot^2(\theta) = \csc^2(\theta)$

Exact Trigonometric Table (Standard Angles)

Degrees (°)	Radians (rad)	sin(θ)	cos(θ)	tan(θ)
0°	0	0	1	0
30°	π/6	1/2	√3 / 2	√3 / 3
45°	π/4	√2 / 2	√2 / 2	1
60°	π/3	√3 / 2	1/2	√3
90°	π/2	1	0	Undefined (∞)

Calculus: Essential Derivative & Integral Rules

Power Rule (d/dx)

$d/dx [x^n] = n \cdot x^{n-1}$

Power Rule (Integral)

$\int x^n dx = (x^{n+1}) / (n+1) + C$

Product Rule

$(u \cdot v)' = u'v + uv'$

Quotient Rule

$(u / v)' = (u'v - uv') / v^2$

Chain Rule

$d/dx [f(g(x))] = f'(g(x)) \cdot g'(x)$

Exponential Derivative

$d/dx [e^x] = e^x \quad | \quad d/dx [\ln x] = 1/x$

Compute derivatives, integrals, and angles with 1-click accuracy

Launch CalcSolver →

⚡ Student Keyboard Shortcuts & Productivity Hacks

Master your classroom workflow with lightning-fast keyboard controls on [CalcSolver](#).



Enter Key = Calculate (=)

Instantly evaluates your full expression without clicking the equals button.



Backspace = Delete Last Entry

Quickly removes the last entered digit or operator without wiping your work.



Escape / C = All Clear (AC)

Clears the current display screen and resets the calculation buffer.



Shift + 6 (^) = Exponent Power

Quickly raises your base number to any power or exponent value.



How to Pin CalcSolver to Your School Chromebook or Phone (1-Tap App)

1. **On Chromebook / Chrome:** Open [CalcSolver](#) (calcsolver.pro), click the **three dots (:)** in top-right → select **"Install CalcSolver"** or **"Create Shortcut"** (check 'Open as window'). It will pin right to your Chromebook shelf!
2. **On iPhone / iPad (Safari):** Tap the **Share** button → select **"Add to Home Screen"**.
3. **On Android (Chrome):** Tap the **menu (:)** → tap **"Add to Home Screen"**.

? Frequently Asked Questions (FAQ)

• **What makes CalcSolver & SolveCalc better than standard calculators?**

Unlike basic handheld calculators, CalcSolver provides a high-contrast dark theme, calculation history memory recall, trigonometric degree/radian toggles, and over 38+ dedicated tools for Algebra, Physics, Chemistry, and Geometry.

• **Is CalcSolver 100% free for students and schools?**

Yes! There are no paywalls, subscriptions, or required account sign-ups. Students and educators worldwide can access all features without limitation.

• **Does CalcSolver work on school Wi-Fi and Chromebooks?**

Yes, CalcSolver is optimized to load ultra-fast with lightweight client-side computation, ensuring seamless operation even on restricted school networks and low-memory devices.



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