

⚡ Free Online Calc Solver • Trusted by 250,000+ Students

Free Online Calc Solver & Pre-Calculus Master Reference Sheet

The official student problem solver guide for **SolveCalc** (also featuring **CalcSolver**). Engineered for fast, step-by-step math problem solving, advanced trigonometry, binomial expansions, and sequences on any school Chromebook, laptop, or phone.

● Live Online Calc Solver • SolveCalc

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CODE

$\log_2(64) + \sin(90^\circ) + \sqrt{144}$

19.00000000

sin	cos	tan	log	ln
x^2	x^3	$\sqrt{}$	π	e
AC	(	)	%	÷
7	8	9	×	−
4	5	6	+	

= SOLVE

⚡ CLICK ANYWHERE ON THIS CALCULATOR TO OPEN LIVE TOOL →



LAUNCH SOLVECALC ONLINE CALC SOLVER →

Instant Online Access at solvecalc.pro • Step-by-Step Math Problem Solver

⚡ Step-by-Step Solver

Solves algebra, complex equations, logarithms, and powers with complete working.



School Chromebook Ready

Engineered to load instantly on school Chromebooks with zero restrictions.



100% Free Forever

No accounts, no paywalls, and no downloads required for students and teachers.

Double-Angle, Half-Angle & Law of Sines/Cosines

High school & AP Pre-Calculus trigonometry master sheet. Verify calculations on [SolveCalc](#).

Double-Angle & Half-Angle Formulas

Double-Angle Sine

Double

$$\sin(2\theta) = 2 \cdot \sin(\theta) \cdot \cos(\theta)$$

Double-Angle Cosine

Double

$$\cos(2\theta) = \cos^2(\theta) - \sin^2(\theta)$$

Cosine Alternative

Double

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

Double-Angle Tangent

Double

$$\tan(2\theta) = 2\tan(\theta) / (1 - \tan^2(\theta))$$

Half-Angle Sine

Half

$$\sin(\theta/2) = \pm \sqrt{(1 - \cos \theta) / 2}$$

Half-Angle Cosine

Half

$$\cos(\theta/2) = \pm \sqrt{(1 + \cos \theta) / 2}$$

Oblique Triangles: Law of Sines & Cosines

Law / Theorem	Formula	Best Used For
Law of Sines	$a / \sin(A) = b / \sin(B) = c / \sin(C)$	AAS, ASA, SSA triangles
Law of Cosines (Side c)	$c^2 = a^2 + b^2 - 2ab \cdot \cos(C)$	SAS, SSS triangles
Law of Cosines (Angle C)	$\cos(C) = (a^2 + b^2 - c^2) / (2ab)$	Finding angles from 3 sides
Triangle Area (SAS)	$\text{Area} = \frac{1}{2} \cdot a \cdot b \cdot \sin(C)$	Given 2 sides & included angle
Heron's Formula	$\text{Area} = \sqrt{s(s-a)(s-b)(s-c)}$ ($s = P/2$)	Given all three sides (SSS)

Sum & Difference Identities

Sine Sum & Diff

$$\sin(A \pm B) = \sin A \cos B \pm \cos A \sin B$$

Cosine Sum & Diff

$$\cos(A \pm B) = \cos A \cos B \mp \sin A \sin B$$

 Need to solve an oblique triangle or angle identity? Solve it on [SolveCalc](#)
[Open SolveCalc Solver →](#)

Sequences, Series, Binomial Theorem & Complex Numbers

Formulas for arithmetic & geometric sequences, sum notations, and complex numbers on [SolveCalc](#).

Arithmetic & Geometric Progressions

Arithmetic n-th Term Linear $a_n = a_1 + (n - 1) \cdot d$	Arithmetic Sum (S_n) Linear $S_n = (n / 2) \cdot [a_1 + a_n]$
Geometric n-th Term Exponential $a_n = a_1 \cdot r^{n-1}$	Finite Geometric Sum Exponential $S_n = a_1 \cdot (1 - r^n) / (1 - r)$
Infinite Geometric Sum Convergent $S_{\infty} = a_1 / (1 - r) \quad (r < 1)$	Common Ratio (r) Ratio $r = a_n / a_{n-1}$

The Binomial Theorem & Coefficients

$(a + b)^n = \sum [n! / (k!(n-k)!)] \cdot a^{n-k} \cdot b^k \quad (\text{from } k=0 \text{ to } n)$
Binomial Coefficient: $nCr = {}^nC_k = n! / (k!(n-k)!)$ matches Row n of Pascal's Triangle.

Complex Numbers & De Moivre's Theorem

Form / Property	Formula	Notes
Imaginary Unit (i)	$i = \sqrt{-1} \quad \quad i^2 = -1 \quad \quad i^3 = -i \quad \quad i^4 = 1$	Powers repeat every 4 cycles
Modulus (Absolute Value)	$ z = a + bi = \sqrt{a^2 + b^2}$	Distance from origin in complex plane
Polar Form (Trig Form)	$z = r(\cos \theta + i \sin \theta) = r \cdot \text{cis}(\theta)$	$r = z , \theta = \arctan(b/a)$
De Moivre's Theorem	$[r(\cos \theta + i \sin \theta)]^n = r^n(\cos n\theta + i \sin n\theta)$	Fast power calculation for complex numbers

Calculate complex numbers, combinations, and series instantly Launch SolveCalc →
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⚡ Calculus Limits, Series & SolveCalc Student Shortcuts

L'Hôpital's Rule, Taylor series expansions, and classroom keyboard shortcuts on SolveCalc.

L'Hôpital's Rule (0/0 or ∞/∞)

$$\lim [f(x)/g(x)] = \lim [f'(x)/g'(x)]$$

Fundamental Theorem of Calc

$$d/dx \left[\int_{-a}^x f(t) dt \right] = f(x)$$

📌 Essential Maclaurin Series Expansions

e^x Series

$$1 + x + x^2/2! + x^3/3! + \dots$$

$\sin(x)$ Series

$$x - x^3/3! + x^5/5! - x^7/7! + \dots$$

$\cos(x)$ Series

$$1 - x^2/2! + x^4/4! - x^6/6! + \dots$$

Geometric $1/(1-x)$

$$1 + x + x^2 + x^3 + \dots \quad (|x| < 1)$$

🖱️ SolveCalc Classroom Speed Hacks (Keyboard Navigation)

- **Instant Evaluate:** Press Enter to evaluate the full formula.
- **Instant Clear:** Press Escape or C to wipe the display and restart.
- **Fast Backspace:** Press Backspace to delete the last digit without losing your expression.
- **Angle Mode:** Click the DEG button on top to toggle radians or degrees.

? Frequently Asked Questions (FAQ)

• How is SolveCalc different from standard online calculators?

SolveCalc is built for students who need step-by-step clarity. It includes memory history, trigonometric mode toggles, and direct equation solving without cluttered advertisements.

• Is SolveCalc completely free on school Chromebooks?

Yes! SolveCalc is 100% free with no sign-ups, subscriptions, or app installations required. It runs smoothly on Chrome OS, Windows, macOS, iOS, and Android.



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