



SAT Math Formula Sheets

Algebra

Formula	Expression
Slope	$(y_2 - y_1) / (x_2 - x_1)$
Linear Equation	$y = mx + b$
Systems	Solve by substitution or elimination
Quadratic Formula	$x = [-b \pm \sqrt{b^2 - 4ac}] / (2a)$

Advanced Math

Formula	Expression
Polynomial Degree	highest exponent
Factoring	$a^2 - b^2 = (a - b)(a + b)$
Rational Expressions	$(a/b) / (c/d) = ad/bc$
Exponent Rules	$a^m a^n = a^{(m+n)}$

Data Analysis

Formula	Expression
Mean	sum / n
Median	middle value
Mode	most frequent
Two-way Tables	use row/column totals

Geometry & Trig

Formula	Expression
Area Circle	πr^2
Volume Cylinder	$\pi r^2 h$
SOH-CAH-TOA	$\sin = \text{opp/hyp}, \cos = \text{adj/hyp}, \tan = \text{opp/adj}$

Prepared by ChatGPT for Math Tutoring AI