



ACT Math Formula Sheets (Corrected Version)

Algebra

Formula	Expression
Slope Formula	$m = (y_2 - y_1) / (x_2 - x_1)$
Slope-Intercept Form	$y = mx + b$
Point-Slope Form	$y - y_1 = m(x - x_1)$
Quadratic Formula	$x = [-b \pm \sqrt{b^2 - 4ac}] / (2a)$
Exponent Rules	$a^m \cdot a^n = a^{(m+n)}$, $a^m / a^n = a^{(m-n)}$
Radicals	$\sqrt{a \cdot b} = \sqrt{a} \cdot \sqrt{b}$

Geometry

Formula	Expression
Area of Triangle	$A = (1/2) \cdot b \cdot h$
Area of Circle	$A = \pi \cdot r^2$
Circumference	$C = 2 \cdot \pi \cdot r$
Pythagorean Theorem	$a^2 + b^2 = c^2$
Volume (Rectangular Prism)	$V = l \cdot w \cdot h$

Trigonometry

Formula	Expression
SOH-CAH-TOA	$\sin = \text{opp/hyp}$, $\cos = \text{adj/hyp}$, $\tan = \text{opp/adj}$
Special Value	$\sin 45^\circ = \cos 45^\circ = \sqrt{2}/2$
Radians-Degrees	$\pi \text{ radians} = 180 \text{ degrees}$

Probability & Statistics

Formula	Expression
Probability	$P(A) = \text{favorable} / \text{total}$
Independent Events	$P(A \text{ and } B) = P(A) * P(B)$
Mean	$\text{sum}(\text{values}) / n$
Median	middle value
Mode	most frequent value

Prepared by ChatGPT for Math Tutoring AI