

Algebra II Reference Sheet (NGLS)

Quadratic Formula	$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$	Arithmetic Sequence	$a_n = a_1 + d(n - 1)$
Trigonometric Identities	$\sin^2(\theta) + \cos^2(\theta) = 1$	Arithmetic Series	$S_n = \frac{n(a_1 + a_n)}{2}$
	$\tan(\theta) = \frac{\sin(\theta)}{\cos(\theta)} \quad \cot(\theta) = \frac{\cos(\theta)}{\sin(\theta)}$	Geometric Sequence	$a_n = a_1 r^{n-1}$
Cubic Factorizations	$\csc(\theta) = \frac{1}{\sin(\theta)} \quad \sec(\theta) = \frac{1}{\cos(\theta)}$	Geometric Series	$S_n = \frac{a_1(1 - r^n)}{1 - r}, r \neq 1$
	$a^3 + b^3 = (a + b)(a^2 - ab + b^2)$ $a^3 - b^3 = (a - b)(a^2 + ab + b^2)$		$S_n = \sum_{k=1}^n a_1 r^{k-1}, r \neq 1$
Probability	$P(A \cup B) = P(A) + P(B) - P(A \cap B)$ $P(A B) = \frac{P(A \cap B)}{P(B)}$	Exponential Growth and Decay	$A = P\left(1 + \frac{r}{n}\right)^{nt}$
Independence	$P(A \cap B) = P(A) \cdot P(B)$ $P(A B) = P(A)$		$A = Pe^{rt}$ $A = A_0 \left(\frac{1}{2}\right)^{\frac{t}{h}}$

Normal Curve

