

## Reference Sheet for Algebra I (NGLS)

### Conversions

1 mile = 5280 feet  
 1 mile = 1760 yards  
 1 pound = 16 ounces  
 1 ton = 2000 pounds

### Conversions Across Measurement Systems

1 inch = 2.54 centimeters  
 1 meter = 39.37 inches  
 1 mile = 1.609 kilometers  
 1 kilometer = 0.6214 mile  
 1 pound = 0.454 kilogram  
 1 kilogram = 2.2 pounds

Quadratic Equation	$y = ax^2 + bx + c$
Quadratic Formula	$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
Equation of the Axis of Symmetry	$x = -\frac{b}{2a}$
Slope	$m = \frac{y_2 - y_1}{x_2 - x_1}$
Linear Equation Slope Intercept	$y = mx + b$
Linear Equation Point Slope	$y - y_1 = m(x - x_1)$

Exponential Equation	$y = ab^x$
Annual Compound Interest	$A = P(1 + r)^n$
Arithmetic Sequence	$a_n = a_1 + d(n - 1)$
Geometric Sequence	$a_n = a_1 r^{n-1}$
Interquartile Range (IQR)	$IQR = Q_3 - Q_1$
Outlier	Lower Outlier Boundary = $Q_1 - 1.5(IQR)$
	Upper Outlier Boundary = $Q_3 + 1.5(IQR)$