

## B.E.S.T. Algebra 1 EOC Mathematics Reference Sheet

### Customary Conversions

1 foot = 12 inches  
 1 yard = 3 feet  
 1 mile = 5,280 feet  
 1 mile = 1,760 yards

1 cup = 8 fluid ounces  
 1 pint = 2 cups  
 1 quart = 2 pints  
 1 gallon = 4 quarts

1 pound = 16 ounces  
 1 ton = 2,000 pounds

### Metric Conversions

1 meter = 100 centimeters  
 1 meter = 1000 millimeters  
 1 kilometer = 1000 meters

1 liter = 1000 milliliters

1 gram = 1000 milligrams  
 1 kilogram = 1000 grams

### Time Conversions

1 minute = 60 seconds  
 1 hour = 60 minutes  
 1 day = 24 hours  
 1 year = 365 days  
 1 year = 52 weeks

### Formulas

Forms of Linear Equations	Forms of Quadratic Functions	Forms of Exponential Functions
$y = mx + b$ $Ax + By = C$ $y - y_1 = m(x - x_1)$	$f(x) = ax^2 + bx + c$ $f(x) = a(x - h)^2 + k$ $f(x) = a(x - p)(x - q)$	$f(x) = ab^x$ $f(x) = a(1 \pm r)^x$

Quadratic Formula
$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ <p>where <math>ax^2 + bx + c = 0</math> and <math>a \neq 0</math></p>

Final Amounts under Simple Interest	Final Amounts under Compound Interest
$A = P(1 + rt)$ <p>where <math>P</math> = principal, <math>r</math> = rate, and <math>t</math> = time</p>	$A = P \left(1 + \frac{r}{n}\right)^{nt}$ <p>where <math>P</math> = principal, <math>r</math> = rate, <math>n</math> = number of times compounded, and <math>t</math> = time</p>