

## Algebra 2 Worksheets

### Basics

[Order of operations](#)

[Evaluating expressions](#)

[Simplifying algebraic expressions](#)

### Linear Relations and Functions

[Review of linear equations](#)

[Graphing absolute value functions](#)

[Graphing linear inequalities](#)

### Matrices

[Basic matrix operations](#)

[Matrix multiplication](#)

[All matrix operations combined](#)

Determinants:[2x2](#),[3x3](#)

[Matrix inverses](#)

Cramer's rule:[2x2](#),[3x3](#)

Matrix equations:[Easy](#),[Hard](#)

[Geometric transformations with matrices](#)

### Quadratic Functions and Inequalities

[Properties of parabolas](#)

[Vertex form](#)

[Graphing quadratic inequalities](#)

[Factoring quadratic expressions](#)

[Solving quadratic equations w/  
square roots](#)

[Solving quadratic equations by  
factoring](#)

[Completing the square](#)

[Solving equations by completing the  
square](#)

[Solving equations with the quadratic  
formula](#)

[The discriminant](#)

### General Functions

[Evaluating functions](#)

[Function operations](#)

[Inverse functions](#)

### Conic Sections

[Graphing & properties of parabolas](#)

[Equations of parabolas](#)

[Graphing & properties of circles](#)

[Equations of circles](#)

[Graphing & properties of ellipses](#)

[Equations of ellipses](#)

[Graphing & properties of hyperbolas](#)

[Equations of hyperbolas](#)

[Classifying conic sections](#)

[Eccentricity](#)

[Systems of quadratic equations](#)

### Sequences and Series

[General sequences](#)

[Arithmetic sequences](#)

[Geometric sequences](#)

[Comparing Arithmetic/Geometric  
Sequences](#)

[General series](#)

[Arithmetic series](#)

[Arithmetic/Geometric Means w/  
Sequences](#)

[Finite geometric series](#)

[Infinite geometric series](#)

### Trigonometry

[Right triangle trig: Evaluating ratios](#)

[Right triangle trig: Missing  
sides/angles](#)

[Angles and angle measure](#)

## Algebra 2 Worksheets

[Co-terminal angles and reference angles](#)

[Arc length and sector area](#)

[Trig ratios of general angles](#)

[Exact trig ratios of important angles](#)

[The Law of Sines](#)

[The Law of Cosines](#)

[Graphing trig functions](#)

[Translating trig functions](#)

[Angle Sum/Difference Identities](#)

[Double-/Half-Angle Identities](#)

### **Equations and Inequalities**

[Multi-step equations](#)

[Work word problems](#)

[Distance-rate-time word problems](#)

[Mixture word problems](#)

[Absolute value equations](#)

[Multi-step inequalities](#)

[Compound inequalities](#)

[Absolute value inequalities](#)

### **Systems of Equations and Inequalities**

[Systems of two linear inequalities](#)

[Systems of two equations](#)

[Systems of two equations, word problems](#)

[Points in three dimensions](#)

[Planes](#)

[Systems of three equations, elimination](#)

[Systems of three equations, substitution](#)

Cramer's rule:[2x2](#),[3x3](#)

### **Complex Numbers**

[Operations with complex numbers](#)

[Properties of complex numbers](#)

[Rationalizing imaginary denominators](#)

### **Polynomial Functions**

[Naming and simple operations](#)

[Factoring a sum/difference of cubes](#)

[Factoring by grouping](#)

[Factoring quadratic form](#)

[Factoring using all techniques](#)

[Factors and Zeros](#)

[The Remainder Theorem](#)

[Irrational and Imaginary Root Theorems](#)

[Descartes' Rule of Signs](#)

[More on factors, zeros, and dividing](#)

[The Rational Root Theorem](#)

[Polynomial equations](#)

[Basic shape of graphs of polynomials](#)

[Graphing polynomial functions](#)

[The Binomial Theorem](#)

### **Radical Functions and Rational Exponents**

[Simplifying radicals](#)

[Operations with radical expressions](#)

[Dividing radical expressions](#)

[Radicals and rational exponents](#)

[Simplifying rational exponents](#)

[Square root equations](#)

[Rational exponent equations](#)

[Graphing radicals](#)

### **Rational Expressions**

[Graphing simple rational functions](#)

## Algebra 2 Worksheets

[Graphing general rational functions](#)

[Simplifying rational expressions](#)

[Multiplying / dividing rational expressions](#)

[Adding / subtracting rational expressions](#)

[Complex fractions](#)

[Solving rational equations](#)

### **Exponential and Logarithmic Functions**

[The meaning of logarithms](#)

[Properties of logarithms](#)

[The change of base formula](#)

[Writing logs in terms of others](#)

[Logarithmic equations](#)

[Inverse functions and logarithms](#)

[Exponential equations not requiring logarithms](#)

[Exponential equations requiring logarithms](#)

[Graphing logarithms](#)

[Graphing exponential functions](#)

### **Statistics & Probability**

[Sample spaces and The Counting Principle](#)

[Independent and dependent events](#)

[Mutually exclusive events](#)

[Permutations](#)

[Combinations](#)

[Permutations vs combinations](#)

[Probability using permutations and combinations](#)