

Chapter 0 Preparing for Algebra

0.2 Square Roots & Perfect Squares

<http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-numbers-operations/cc-8th-roots/v/understanding-square-roots>

Evaluating Radical expressions

http://www.youtube.com/watch?feature=player_embedded&v=VDgqckCNn3w

0.3 Absolute Value

<http://www.youtube.com/watch?v=NvGTCzAfv0>

0.3 Adding and Subtracting Real Number

<http://www.youtube.com/watch?v=jvad-axh3ww>

0.3 Multiplying and Dividing Real Numbers

<http://www.youtube.com/watch?v=WEpL7EUluXw>

Chapter 1 Expressions, Equations and Functions

1.1 Variables in Algebra

<http://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-expressions-and-variables/cc-6th-equations-inequalities/v/variables-expressions-and-equations?v=vDqOoI-4Z6M>

<http://www.brightstorm.com/math/algebra/pre-algebra/defining-variables/>

1.1 Translating Words into Mathematical Symbols

[http://www.lemars.k12.ia.us/webfiles/mboyd/Algebra%201A%20&%201B%20Textbook%20\(e-edition\)/Source/CAP01FAD.pdf](http://www.lemars.k12.ia.us/webfiles/mboyd/Algebra%201A%20&%201B%20Textbook%20(e-edition)/Source/CAP01FAD.pdf)

<http://www.youtube.com/watch?v=HK10zRUTRhY>

1.1 Exponents and Powers

http://www.youtube.com/watch?v=wCFSy_JKz3g

<http://learnzillion.com/lessons/438-use-whole-number-exponents-to-denote-powers-of-ten>

<http://vimeo.com/86415590>

<http://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-arithmetic-operations/cc-6th-exponents/v/introduction-to-exponents>

1.1 Translating Words into Mathematical Symbols

[http://www.lemars.k12.ia.us/webfiles/mboyd/Algebra%201A%20&%201B%20Textbook%20\(e-edition\)/Source/CAP01FAD.pdf](http://www.lemars.k12.ia.us/webfiles/mboyd/Algebra%201A%20&%201B%20Textbook%20(e-edition)/Source/CAP01FAD.pdf)

<http://www.youtube.com/watch?v=HK10zRUTRhY>

1.2 Order of Operations

<http://www.youtube.com/watch?v=dAgfnK528RA>

<http://www.brightstorm.com/math/algebra/pre-algebra/order-of-operations/>

<http://www.youtube.com/watch?v=3Mu3ciXkemg>

<http://www.youtube.com/watch?v=AoAiItPsGwM>

http://www.youtube.com/watch?v=Y3CZ_JBQ0do

1.4 Distributive Property and Combining Like Terms

<http://www.youtube.com/watch?v=4bD8DOXBOeo>

<http://www.youtube.com/watch?v=STfLvYhDhwk>

1.5 and 5.1 Equations and Inequalities

<https://www.khanacademy.org/math/algebra/solving-linear-equations-and-inequalities/why-of-algebra/v/why-we-do-the-same--thing-to-both-sides--simple-equations>

<https://www.khanacademy.org/math/algebra/solving-linear-equations-and-inequalities/why-of-algebra/v/representing-a-relationship-with-a-simple-equation>

<https://www.khanacademy.org/math/algebra/solving-linear-equations-and-inequalities/why-of-algebra/v/one-step-equation-intuition>

https://www.khanacademy.org/math/algebra/linear_inequalities/inequalities/v/one-step-inequalities-2

1.6 The Coordinate Plane

<http://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-geometry-topic/cc-6th-coordinate-plane/v/the-coordinate-plane>

1.6 and 1.7 Tables and Graphs

<http://www.wikihow.com/Make-Bar-Graphs>

<http://www.youtube.com/watch?v=cxObY5VaorU>

<http://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-data-statistics/cc-6th-line-pictographs/v/u08-l1-t2-we2-reading-line-graphs>

1.6 Domain, Range and Relation

<http://www.youtube.com/watch?v=7Hg9JJceyWA>

1.7 An Introduction to Function

<http://www.youtube.com/watch?v=vO5qqfsWzhc>

<http://www.mathcentre.ac.uk/resources/uploaded/mc-ty-introfns-2009-1.pdf>

1.7 Vertical Line Test

<http://www.youtube.com/watch?v=96VqHrvZdXw>

1.7 Evaluate a Function

<http://www.youtube.com/watch?v=YA9qEHnsdvQ>

Chapter 2 Solving Linear Equations

2.2 Solving Equations Using Addition and Subtraction

<http://www.khanacademy.org/math/algebra/solving-linear-equations-and-inequalities/why-of-algebra/v/adding-and-subtracting-the-same-thing-from-both-sides>

2.2 Solving Equations Using Multiplication and Division

<https://www.youtube.com/watch?v=zBqIH-E3ero>

Multiply by the Reciprocal

<http://www.youtube.com/watch?v=UkVmmdNp8iU>

2.3 Solving Multi-Step Equations

<http://www.youtube.com/watch?v=wShnYemlr28>

<http://www.youtube.com/watch?v=X7RVhbvl6kE>

<http://www.bing.com/videos/search?q=solving+multi+step+equations+khan+academy&&view=detail&mid=98297B0FA078BA5749A298297B0FA078BA5749A2&FORM=VRDGAR>

2.4 Solving Equations with Variables on Both Side

https://www.youtube.com/watch?v=a5uNoOnEy_A

<http://www.youtube.com/watch?v=wShnYemlr28>

[http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-solving-equations/cc-8th-linear-equations/e/linear equations 3](http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-solving-equations/cc-8th-linear-equations/e/linear_equations_3)

2.4 Identify the Number of Solutions

<http://www.youtube.com/watch?v=IMmzCtnSlo0>

2.4 More Linear Equations

<http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-solving-equations/cc-8th-equations-distribution/v/solving-equations-with-the-distributive-property>

[http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-solving-equations/cc-8th-equations-distribution/e/multistep equations with distribution](http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-solving-equations/cc-8th-equations-distribution/e/multistep_equations_with_distribution)

<http://www.youtube.com/watch?v=xdDE2Z6WwnU>

2.4 Solving Decimal Equations

<http://www.youtube.com/watch?v=dZUXBCVCgWE>

2.5 Solving Absolute-Value Inequalities

<http://www.youtube.com/watch?v=-q1oirdfTAM>

Chapter 3 Graphing Linear Equations

3.1 Graphing Linear Equations

<https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-linear-equations-functions/8th-solutions-to-two-var-linear-equations/v/graphs-of-linear-equations>

3.1 Graphing Horizontal and Vertical Lines

<https://www.youtube.com/watch?v=KwBE2pJDWvU>

3.1 Graphing Lines Using Intercepts

<http://www.youtube.com/watch?v=5avYfw7DRo8>

3.3 The Slope of a Line

<http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-relationships-functions/cc-8th-slope/v/slope-of-a-line-2>

http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-relationships-functions/cc-8th-slope/e/slope_of_a_line

Chapter 4 Graphing and Writing Linear Equations

4.1 Graphing Lines Using Slope-Intercept Form

<http://www.khanacademy.org/math/algebra/linear-equations-and-inequalitie/graphing-slope-intercept/v/graphing-a-line-in-slope-intercept-form>

http://www.khanacademy.org/math/algebra/linear-equations-and-inequalitie/graphing-slope-intercept/e/graphing_linear_equations

4.2 Writing Equations in Slope-Intercept Form

<http://www.youtube.com/watch?v=pyAFnb4QQNk>

4.2 and 4.3 Writing Linear Equations Given Two Points

<http://www.youtube.com/watch?v=4il4haYASys>

4.3 Writing Equations in Point-Slope Form

<http://www.youtube.com/watch?v=aQhb84bZDzw>

4.3 Writing in Equations in Standard Form

<http://www.bing.com/videos/search?q=writing+equations+in+standard+form&&view=detail&mid=5B088F0F2CB97EFB631A5B088F0F2CB97EFB631A&FORM=VRDGAR>

4.3 Modeling with Linear Equations

<http://www.youtube.com/watch?v=bca5tGJmvr8>

<http://www.youtube.com/watch?v=jsjgc2YGpEI>

Chapter 5 Solving and Graphing Linear Inequalities

5.1 Solving Inequalities Using Addition or Subtraction

<http://www.youtube.com/watch?v=dmQ8lW0lAv0>

5.2 Solving Inequalities Using Multiplication or Division

<http://www.youtube.com/watch?v=l6Njd2XWF5E>

5.3 Solving Multi-Step Inequalities

<http://www.youtube.com/watch?v=UDORaoQ-2pQ>

5.4 and 5.5 Solving Compound Inequalities Involving "And" and "Or"

<http://www.youtube.com/watch?v=aHZIk3W3EzM&spfreload=1>

5.5 Solving Absolute-Value Inequalities

<http://www.youtube.com/watch?v=-q1oirdfTAM>

5.6 Graphing Linear Inequalities in Two Variables

<http://www.youtube.com/watch?v=Hzxc4HASyGU>

Chapter 6 Linear Systems

6.1 Solving Linear Systems Graphically

<http://www.youtube.com/watch?v=cuNpXve18Pc>

http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-systems-topic/cc-8th-systems-graphically/e/graphing_systems_of_equations

6.2 Solving Linear Systems Using Substitution

<http://www.youtube.com/watch?v=mDw2F2zvThs>

http://www.khanacademy.org/math/algebra/systems-of-eq-and-ineq/systems-with-substitution/e/systems_of_equations_with_substitution

6.2 Special Types of Linear Systems

http://www.khanacademy.org/math/algebra/systems-of-eq-and-ineq/fast-systems-of-equations/e/solutions_to_systems_of_equations

6.3 and 6.4 Solving Linear Systems Linear Combination/Elimination

<http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-systems-topic/cc-8th-systems-elimination/v/solving-systems-by-elimination-2>

http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-systems-topic/cc-8th-systems-elimination/e/systems_of_equations_with_elimination

6.5 Linear Systems and Problem Solving (word problems)

<http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-systems-topic/cc-8th-systems-elimination/v/solving-systems-by-elimination>

http://www.khanacademy.org/math/algebra/systems-of-eq-and-ineq/systems-word-problems/e/systems_of_equations_word_problems

6.6 Systems of Linear Inequalities

<http://www.khanacademy.org/math/algebra/systems-of-eq-and-ineq/system-of-inequalities/v/graphical-system-of-inequalities>

Chapter 7 Exponents

7.1 Multiplication Properties of Exponents

<http://www.youtube.com/watch?v=VQTCKIRA0rs>

<http://www.youtube.com/watch?v=n3NgHbjtaIM>

7.2 Zero and Negative Exponents and Division Properties of Exponents

<http://www.youtube.com/watch?v=A5wgvej2FHo>

http://www.youtube.com/watch?v=uSXGP_UR3vQ

<http://www.schooltube.com/video/bad33308a293497188de/Division%20Properties%20of%20Exponent>

7.5 Graphs of Exponential Functions

http://www.khanacademy.org/math/algebra/algebra-functions/graphing_functions/v/graphing-exponential-functions

<http://www.youtube.com/watch?v=8ZNpM7aSkUA>

Chapter 8 Quadratic Expressions and Equations

8.1 Adding and Subtracting Polynomials

https://www.khanacademy.org/math/trigonometry/polynomial_and_rational/polynomial_tutorial/v/addition-and-subtraction-of-polynomials

https://www.khanacademy.org/math/trigonometry/polynomial_and_rational/polynomial_tutorial/e/adding_and_subtracting_polynomials

8.2 Multiplying Polynomials

<https://www.khanacademy.org/math/algebra/multiplying-factoring-expression/multiplying-binomials/v/multiplying-binomials>

https://www.khanacademy.org/math/algebra/multiplying-factoring-expression/multiplying_polynomials/e/multiplying_polynomials

8.4 Special Products of Polynomials

<https://www.khanacademy.org/math/algebra/multiplying-factoring-expression/multiplying-binomials/v/special-products-of-binomials>

8.5 Using the Distributive Property (GCF)

https://learnzillion.com/lesson_plans/4860-find-the-gcf-of-two-numbers-using-the-distributive-property

8.5 Solving Quadratic Equations in Factored Form

http://hotmath.com/hotmath_help/topics/zero-product-property.html

8.6 Factoring $x^2 + bx + c$

<https://www.khanacademy.org/math/algebra/multiplying-factoring-expression/factoring-quadratic-expressions/v/factoring-polynomials-1>

https://www.khanacademy.org/math/algebra/multiplying-factoring-expression/factoring-quadratic-expressions/e/factoring_polynomials_1

8.6 Factoring Cubic Polynomials

<https://www.youtube.com/watch?v=qNXfJxRSP6s>

<http://www.khanacademy.org/math/algebra/multiplying-factoring-expression/factoring-simple-expressions/v/factor-polynomials-using-the-gcf>

https://www.khanacademy.org/math/trigonometry/polynomial_and_rational/factoring-higher-deg-polynomials/v/factoring-sum-of-cubes

https://www.khanacademy.org/math/trigonometry/polynomial_and_rational/factoring-higher-deg-polynomials/v/difference-of-cubes-factoring

8.7 Factoring $x^2 + bx + c$

<https://www.khanacademy.org/math/algebra/multiplying-factoring-expression/factoring-quadratic-expressions/v/factoring-polynomials-1>

https://www.khanacademy.org/math/algebra/multiplying-factoring-expression/factoring-quadratic-expressions/e/factoring_polynomials_1

8.8 and 8.8 Factoring Special Products

<https://www.khanacademy.org/math/algebra/multiplying-factoring-expression/factoring-special-products/v/factoring-special-products>

8.9 Square Roots & Perfect Squares

<http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-numbers-operations/cc-8th-roots/v/understanding-square-roots>

Practice Problems:

http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-numbers-operations/cc-8th-roots/e/square_roots

8.9 Solving Quadratic Equations by Finding Square Roots

<http://www.khanacademy.org/math/algebra/quadratics/quadratics-square-root/v/simple-quadratic-equation>

Chapter 9 Quadratic Functions and Equations

9.2 Solving Quadratic Equations by Graphing

<https://www.youtube.com/watch?v=7GHsJNBwt9E>

9.5 Solving Quadratic Equations by the Quadratic Formula

<http://www.khanacademy.org/math/algebra/quadratics/quadratic-formula/v/quadratic-formula-1>

Chapter 10 Radical Functions

10.1 Functions Involving Square Roots

http://hotmath.com/hotmath_help/topics/graphing-square-root-functions.html

10.2 Simplifying Radicals

<http://www.khanacademy.org/math/arithmetic/exponents-radicals/radical-radicals/v/simplifying-radicals>

Practice problems

http://www.khanacademy.org/math/arithmetic/exponents-radicals/radical-radicals/e/simplifying_radicals

Rationalize the Denominator

<http://www.khanacademy.org/math/algebra/exponent-equations/simplifying-radical-expressions/v/how-to-rationalize-a-denominator>

Using product/quotient properties of radicals

<http://www.youtube.com/watch?v=RjQ5MzBeY-I>

<http://www.bing.com/videos/search?q=operations+with+radical+expressions&FORM=HDRSC3#view=detail&mid=923CC134005DB354986D923CC134005DB354986D>

<http://www.bing.com/videos/search?q=operations+with+radical+expressions&FORM=HDRSC3#view=detail&mid=3F80A18489CB39E256C93F80A18489CB39E256C9>

<http://www.bing.com/videos/search?q=rationalize+the+denominator&FORM=HDRSC3#view=detail&mid=799A041722FE5AE21045799A041722FE5AE21045>

10.3 Operations with Radicals

<http://www.bing.com/videos/search?q=operations+with+radical+expressions&FORM=HDRSC3#view=detail&mid=923CC134005DB354986D923CC134005DB354986D>

<http://www.bing.com/videos/search?q=operations+with+radical+expressions&&view=detail&mid=46D3577131E62726780746D3577131E627267807&FORM=VRDGAR>

<http://www.bing.com/videos/search?q=rationalize+the+denominator&FORM=HDRSC3#view=detail&mid=799A041722FE5AE21045799A041722FE5AE21045>

10.4 Radical Equations

<http://www.bing.com/videos/search?q=solving+radical+equations&FORM=HDRSC3#view=detail&mid=54488F433C2CE0E423C454488F433C2CE0E423C4>

10.5 Pythagorean Theorem

<http://www.bing.com/videos/search?q=pythagorean+theorem&&view=detail&mid=AAC0CF9C57313B9AFC9EAAAC0CF9C57313B9AFC9E&FORM=VRDGAR>

<http://www.bing.com/videos/search?q=pythagorean+theorem&FORM=HDRSC3#view=detail&mid=C0A9949D9E0CBF568373C0A9949D9E0CBF568373>

Chapter 11 Rational Functions and Equations

2.6 Proportions

https://www.khanacademy.org/math/algebra/ratio-proportion-topic/ratios_algebra/v/find-an-unknown-in-a-proportion

https://www.khanacademy.org/math/algebra/ratio-proportion-topic/ratios_algebra/v/proportions-2-exercise-examples

11.3 Simplifying Rational Expressions

https://www.khanacademy.org/math/trigonometry/polynomial_and_rational/simplifying-rational-expressions/v/simplifying-rational-expressions-introduction

11.4 Multiplying and Dividing Rational Expressions

<https://www.khanacademy.org/math/algebra/rational-expressions/multi-div-rational-exp/v/multiplying-and-dividing-rational-expressions-2>

<https://www.khanacademy.org/math/algebra/rational-expressions/multi-div-rational-exp/v/multiplying-and-dividing-rational-expressions-3>

11.6 Adding and Subtracting with Like Denominators

demy.org/math/algebra/rational-expressions/rational_expressions/e/adding_and_subtracting_rational_expressions_1.5

11.6 Adding and Subtracting with Unlike Denominators

[http://www.bing.com/videos/search?q=adding+and+subtracting+with+unlike+denominator
s&&view=detail&mid=FC7590511A0F5535D00CFC7590511A0F5535D00C&FORM=VRD
GAR](http://www.bing.com/videos/search?q=adding+and+subtracting+with+unlike+denominators&view=detail&mid=FC7590511A0F5535D00CFC7590511A0F5535D00C&FORM=VRD GAR)

[https://www.khanacademy.org/math/algebra/rational-expressions/rational_expressions/v/subtracting-
rational-expressions](https://www.khanacademy.org/math/algebra/rational-expressions/rational_expressions/v/subtracting-rational-expressions)

11.8 Rational Equations

[https://www.khanacademy.org/math/algebra/rational-expressions/solving-rational-equations/v/solving-
rational-equations-2](https://www.khanacademy.org/math/algebra/rational-expressions/solving-rational-equations/v/solving-rational-equations-2)