

Algebra 2 CC – First Semester Topics with supporting video links

Below is a list of concepts that we've covered in Algebra2 CC with links to helpful video tutorials. Most of the videos are from eMathInstruction.com with Kirk Weiler. I have also created videos which I've included as well.

Functions

Function Notation: <https://www.youtube.com/watch?v=KX7x0GJbCdk>

Stewart's video: <https://youtu.be/Zd9e-goSFfU>

Function Composition: <https://www.youtube.com/watch?v=V-Fr7RwoTwE>

Domain and Range: https://www.youtube.com/watch?v=iSs6_adGfKA

One-to-One Functions: <https://www.youtube.com/watch?v=j6j0TgYGuKM>

Inverse Functions: <https://www.youtube.com/watch?v=kL-py1mRo9A>

Linear Functions

Solving Linear Equations: <https://www.youtube.com/watch?v=0MdpOWj5Hf8>

Average Rate of Change: <https://www.youtube.com/watch?v=nB0wOlzOWxg>

Direct Variation: <https://www.youtube.com/watch?v=Pe1tR5-QMCs>

Forms of a Line: <https://www.youtube.com/watch?v=eBLbbbKMZY>

Piecewise Functions: <https://www.youtube.com/watch?v=ZMnCq71OPEQ>

Stewart's video: <https://youtu.be/LhLVg9on-hs>

Systems of Equations with 3 variables

Exponential and Logarithmic Expressions and Functions

Exponential Modeling: <https://www.youtube.com/watch?v=pQCmrUw3Nfc>

Solve Exponential Equations using Common Bases:

<https://www.youtube.com/watch?v=5wk42aeW8RI>

Stewart's video: <https://youtu.be/CHk60u03ecE>

Compound Interest: <https://www.youtube.com/watch?v=SEmtJ7Gmj4s>

The number e: <https://www.youtube.com/watch?v=1Dv61VHE03o>

Graphs of Logs: <https://www.youtube.com/watch?v=S19S-o09lv4>

Intro to Logs: <https://www.youtube.com/watch?v=p9tWeYPU3RE>

Log Properties: <https://www.youtube.com/watch?v=59veUcMj6aY>

Stewart's video: <https://youtu.be/cwnijHX3rmg>

Stewart's video: <https://youtu.be/wvM6H0Grh9c>

Exponents and Logs – Solving Log Equations:
<https://www.youtube.com/watch?v=X8wz5kbAbls>

Solve exponential and logarithmic equations:

Stewart's video: https://youtu.be/BtI_TV0le5E

Sequences and Series

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

Stewart's video: <https://youtu.be/MSAWzIIPlkg>

Recursive: https://www.youtube.com/watch?v=Du9H_xB-Ak

Summation: <https://www.youtube.com/watch?v=dAxM2RQH-8M>

Arithmetic Series: <https://www.youtube.com/watch?v=XAVLua68y4E>

Geometric Series: <https://www.youtube.com/watch?v=-oYeEQI8QQA>

Stewart's video: <https://youtu.be/Qla93LLSJ6Y>

Stewart's video: <https://youtu.be/FVpAJeDof8k>

Factoring Strategies

GCF & DOPS <https://www.youtube.com/watch?v=YTmjSE9ipJ0>

Stewart's video: https://youtu.be/CUKBP_J0qrM

Trinomials <https://www.youtube.com/watch?v=WtcO4VHgPdY>

Stewart's video: <https://youtu.be/EZxISRxJa64>

Stewart's video: <https://youtu.be/2Rhq6hUduOA>

Factor Completely https://www.youtube.com/watch?v=_aj-Y9F4i2c

Factor by Grouping: https://www.youtube.com/watch?v=H_N2w6jUn5A

Stewart's video: https://youtu.be/zlxxFnrp_OQ

Quadratic Expressions and Functions

Identities: <https://www.youtube.com/watch?v=AttAl5qQy0k>

Zero Property: https://www.youtube.com/watch?v=0gJrcH3_esl

Square Root Property: <https://www.youtube.com/watch?v=r54q3QzHprc>

Quadratic Inequalities <https://www.youtube.com/watch?v=8lnQzJLyc40>

Vertex Form of a parabola <https://www.youtube.com/watch?v=uRS3iUfOTts>

Completing the square

Locus Definition of a parabola: <https://www.youtube.com/watch?v=5CU5FcB9tul>

Systems of Equations

Expressions with Exponents and Radicals

Rational Exponents: <https://www.youtube.com/watch?v=zKhh3YdpWRA>

Negative Exponents: <https://www.youtube.com/watch?v=BSNhNY80GIk>

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

Stewart's video: <https://youtu.be/jPFgSj6147w>

Simplify radical expressions

Stewart's video (basic square roots) <https://youtu.be/QiiALQDIIRI>

Stewart's video (simplify square roots with variables)

<https://youtu.be/tKwMYaJ1mMU>

Stewart's video (operations with radicals) https://youtu.be/Y_IFzgi_lhU

Square Root Functions: https://www.youtube.com/watch?v=8c1SsNjw_TI

Expressions to the n th root: <https://www.youtube.com/watch?v=6z54mvpU-bA>

Solving Square Root Equations: <https://www.youtube.com/watch?v=SZ5zSqXrnmg>

Complex Numbers

Imaginary Numbers: <https://www.youtube.com/watch?v=yh6sfDQX4ek>

Complex Numbers: <https://www.youtube.com/watch?v=WSUTOSGqH4A>

Stewart's video on powers of i and complex numbers: <https://youtu.be/d-LxqOhADGQ>

Solving Quadratics with Complex roots:

<https://www.youtube.com/watch?v=DCdmAD0pUw0>

The Discriminant: <https://www.youtube.com/watch?v=3jolQ1hUjfg>

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

Square Root Functions: https://www.youtube.com/watch?v=8c1SsNjw_TI