

OpenStax Algebra & Trigonometry Recorded Lectures and Notes for Precalculus

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Community College / Lower Division

Mathematics

SUMMARY:

This resource is a collection of full hour-long lectures and accompanying notes covering most of chapters 6-10 of the OpenStax Algebra and Trigonometry book. The notes are provided in both .DOCX and .PDF format to accommodate downloading ease. Students should be encouraged to print notes and fill them out as they watch through the lectures.

LEARNING GOALS:

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Unit 1 - Rational, Exponential, and Logarithmic Functions

5.6 - Rational Functions

Download: [Lecture Notes 5.6 - Rational Functions .docx](#)

Download: [Lecture Notes 5.6 - Rational Functions .pdf](#)

5.6 - Rational Functions: <https://www.youtube.com/watch?v=u8im9mTcSlk&t=5s>

6.1 - Exponential Functions

Download: [6.1 - Exponential Functions.docx](#)

Download: [6.1 - Exponential Functions.pdf](#)

6.1 - Exponential Functions: https://www.youtube.com/watch?v=KEol2EEe4kg&index=1&list=PLJPxiuRYDT5fwVNP6H7_WFIYV-GqBA-yM

6.2 - Graphs of Exponential Functions

Download: [6.2 - Graphs of Exponential Functions.docx](#)

Download: [6.2 - Graphs of Exponential Functions.pdf](#)

6.2 - Graphs of Exponential Functions: https://www.youtube.com/watch?v=0u66VceCZx8&list=PLJPxiuRYDT5fwVNP6H7_WFIYV-GqBA-yM&index=2

6.3 - Logarithmic Functions

Download: [6.3 - Logarithmic Functions.docx](#)

Download: [6.3 - Logarithmic Functions.pdf](#)

6.3 - Logarithmic Functions: https://www.youtube.com/watch?v=Q4q-NHmDt5A&list=PLJPxiuRYDT5fwVNP6H7_WFIYV-GqBA-yM&index=3

6.4 - Graphs of Logarithmic Functions

Download: [6.4 - Graphs of Logarithmic Functions.docx](#)

Download: [6.4 - Graphs of Logarithmic Functions.pdf](#)

6.4 - Graphs of Logarithmic Functions: https://www.youtube.com/watch?v=lyZfpF6xQNo&list=PLJPxiuRYDT5fwVNP6H7_WFIYV-GqBA-yM&index=4

6.5 - Properties of Logarithms

Download: [6.5 - Logarithmic Properties.docx](#)

Download: [6.5 - Logarithmic Properties.pdf](#)

6.5 - Logarithmic Properties: https://www.youtube.com/watch?v=qE_vFWHwjU&list=PLJPxiuRYDT5fwVNP6H7_WFIYV-GqBA-yM&index=5



Unit 2 - The Unit Circle and Trigonometric Functions

7.1 - Angles

Download: [7.1 - Angles.docx](#)

Download: [7.1 - Angles.pdf](#)

7.1 Angles: <https://www.youtube.com/watch?v=nVQQl6Pr4qg&index=1&list=PLJPxiuRYDT5eOPJo9oeP09v67oUc3aTex>

7.2 - Right Triangle Trigonometry

Download: [7.2 - Right Triangle Trigonometry.docx](#)

Download: [7.2 - Right Triangle Trigonometry.pdf](#)

7.2 Right Triangle Trigonometry: <https://www.youtube.com/watch?v=LxgIDyJdDKY&list=PLJPxiuRYDT5eOPJo9oeP09v67oUc3aTex&index=2>

7.3 - Unit Circle

Download: [7.3 - Unit Circle.docx](#)

Download: [7.3 - Unit Circle.pdf](#)

7.3 Unit Circle: https://www.youtube.com/watch?v=8l_M8OQFQuw&index=3&list=PLJPxiuRYDT5eOPJo9oeP09v67oUc3aTex

7.4 - Other Trigonometric Functions



Download: [7.4 - The Other Trig Functions.docx](#)

Download: [7.4 - The Other Trig Functions.pdf](#)

7.4 The Other Trig Functions: <https://www.youtube.com/watch?v=QwgT-enKWTg&index=4&list=PLJPxiuRYDT5eOPJo9oeP09v67oUc3aTex>

8.1 - Graphs of Sine and Cosine

Download: [8.1 - Graphs of Sine and Cosine.docx](#)

Download: [8.1 - Graphs of Sine and Cosine.pdf](#)

<https://www.youtube.com/watch?v=ScXQGanjUwY&list=PLJPxiuRYDT5eOPJo9oeP09v67oUc3aTex&index=5>

8.1 Graphs of Sine and Cosine Functions Part A: <https://www.youtube.com/watch?v=ScXQGanjUwY&list=PLJPxiuRYDT5eOPJo9oeP09v67oUc3aTex&index=5>

8.1 Graphs of Sine and Cosine Functions Part B: <https://www.youtube.com/watch?v=f3lvIkUpNog&index=6&list=PLJPxiuRYDT5eOPJo9oeP09v67oUc3aTex>

8.2 - Graphs of Other Trigonometric Functions

Download: [8.2 Graphs of Other Trig Functions_YRxaFwn.docx](#)

Download: [8.2 Graphs of Other Trig Functions_pcsqMvp.pdf](#)

8.2 Graphs of Other Trig Functions Part A: <https://www.youtube.com/watch?>



[v=qfXH95FBSyo&list=PLJPxiuRYDT5eOPJo9oeP09v67oUc3aTex&index=7](https://www.youtube.com/watch?v=qfXH95FBSyo&list=PLJPxiuRYDT5eOPJo9oeP09v67oUc3aTex&index=7)

8.2 Graphs of Other Trig Functions Part B: <https://www.youtube.com/watch?v=yrEG356U4IU&index=8&list=PLJPxiuRYDT5eOPJo9oeP09v67oUc3aTex>

8.3 - Inverse Trigonometric Functions

Download: [8.3 - Inverse Trigonometric Functions.docx](#)

Download: [8.3 - Inverse Trigonometric Functions.pdf](#)

8.3 Inverse Trig Functions: <https://www.youtube.com/watch?v=4AILVV6F-9k&index=9&list=PLJPxiuRYDT5eOPJo9oeP09v67oUc3aTex>

Unit 3 - Trig Identities and Solving Trigonometric Identities

9.1 - Solving Trigonometric Equations with Identities

Download: [9.1 - Solving Trig Equations with Identities.docx](#)

Download: [9.1 - Solving Trig Equations with Identities.pdf](#)

9.1 Solving Trigonometric Equations with Identities: <https://www.youtube.com/watch?v=M2rbnUbftok&list=PLJPxiuRYDT5cg7ytSFlaFOpwRLonCJH6r&index=1>

9.2 - Sum & Difference Identities

Download: [9.2 - Sum and Difference Identities.docx](#)



Download: [9.2 - Sum and Difference Identities.pdf](#)

9.2 Sum and Difference Identities: <https://www.youtube.com/watch?v=oK7vTdSlqek&index=2&list=PLJPxiuRYDT5cg7ytSFlaFOpwRLonCJH6r>

9.3 - Double-Angle, Half-Angle, and Reduction Formulas

Download: [9.3 - Double-Angle Half-Angle and Reduction Formulas.docx](#)

Download: [9.3 - Double-Angle Half-Angle and Reduction Formulas.pdf](#)

9.3 Double angle, Half angle, and Reduction Formulas: <https://www.youtube.com/watch?v=O1VvMF3Dc14&index=3&list=PLJPxiuRYDT5cg7ytSFlaFOpwRLonCJH6r>

9.4 - Sum-to-Product and Product-to-Sum

Download: [9.4 - Sum-to-Product and Product-to-Sum Formulas.docx](#)

Download: [9.4 - Sum-to-Product and Product-to-Sum Formulas.pdf](#)

9.4 Sum to Product and Product to Sum Functions: <https://www.youtube.com/watch?v=fjWKgNLyf-E&list=PLJPxiuRYDT5cg7ytSFlaFOpwRLonCJH6r&index=4>

9.5 - Solving Trigonometric Equations

Download: [9.5 - Solving Trigonometric Identities.docx](#)

Download: [9.5 - Solving Trigonometric Identities.pdf](#)

9.5 Trigonometric Equations: <https://www.youtube.com/watch?v=KWvczQPZhs&index=5&list=PLJPxiuRYDT5cg7ytSFlaFOpwRLonCJH6r>

Unit 4 - Law of Sines and Cosines & Polar Coordinates

10.1 - Non-Right Triangles: Law of Sines

Download: [10.1 - Non-Right Triangles- Law of Sines.docx](#)

Download: [10.1 - Non-Right Triangles- Law of Sines.pdf](#)

10.1 Non right Triangles The Law of Sines: https://www.youtube.com/watch?v=FJTkgQKwrGg&list=PLJPxiuRYDT5ecSNF4JyvNHoysh78V_FY&index=1

10.2 - Non-Right Triangles: Law of Cosines

Download: [10.2 - Non-Right Triangle- The Law of Cosines.docx](#)

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10.2 Non right Triangles The Law of Cosines: https://www.youtube.com/watch?v=oK1rBubr9K0&index=2&list=PLJPxiuRYDT5ecSNF4JyvNHoysh78V_FY

10.3 - Polar Coordinates

Download: [10.3 - Polar Coordinates.docx](#)



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