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Curriculum Map

Unit 0 - Preparing for Pre-Calculus

0-1 Sets
CCSS.MATH.CONTENT.HSF.IF.A.1   CCSS.MATH.CONTENT.HSF.IF.A.2

0-2 Operations with Complex Numbers
CCSS.MATH.CONTENT.HSN.CN.A.1   CCSS.MATH.CONTENT.HSN.RN.B.3
CCSS.MATH.CONTENT.HSN.CN.A.2   CCSS.MATH.CONTENT.HSN.CN.C.8
CCSS.MATH.CONTENT.HSN.CN.A.3   CCSS.MATH.CONTENT.HSN.CN.C.9

0-3 Quadratic Functions and Equations
CCSS.MATH.CONTENT.HSA.SSE.B.3.A   CCSS.MATH.CONTENT.HSF.IF.B.4
CCSS.MATH.CONTENT.HSA.SSE.B.3.B   CCSS.MATH.CONTENT.HSF.IF.B.5
CCSS.MATH.CONTENT.HSF.IF.C.7   CCSS.MATH.CONTENT.HSN.CN.C.7
CCSS.MATH.CONTENT.HSF.IF.C.7.A

0-4 nth Roots and Real Exponents
CCSS.MATH.CONTENT.HSN.RN.A.1   CCSS.MATH.CONTENT.HSN.RN.B.3
CCSS.MATH.CONTENT.HSN.RN.A.2

0-5 Systems of Linear Equations and Inequalities
CCSS.MATH.CONTENT.HSA.REI.C.5   CCSS.MATH.CONTENT.HSA.REI.C.9
CCSS.MATH.CONTENT.HSA.REI.C.6   CCSS.MATH.CONTENT.HSA.REI.D.10
CCSS.MATH.CONTENT.HSA.REI.C.7   CCSS.MATH.CONTENT.HSA.REI.D.11
CCSS.MATH.CONTENT.HSA.REI.C.8   CCSS.MATH.CONTENT.HSA.REI.D.12

0-6 Matrix Operations
CCSS.MATH.CONTENT.HSN.VM.C.8   CCSS.MATH.CONTENT.HSA.REI.C.9
CCSS.MATH.CONTENT.HSA.REI.C.8

0-7 Probability with Permutations and Combinations
CCSS.MATH.CONTENT.HSS.CP.B.9

0-8 Statistics
CCSS.MATH.CONTENT.HSS.ID.A.1   CCSS.MATH.CONTENT.HSS.ID.A.3
CCSS.MATH.CONTENT.HSS.ID.A.2   CCSS.MATH.CONTENT.HSS.ID.A.4

Unit 1 - Functions and Relations

1-1   Functions
CCSS.MATH.CONTENT.HSF.IF.A.1   CCSS.MATH.CONTENT.HSF.IF.A.3
CCSS.MATH.CONTENT.HSF.IF.A.2

1-2   Analyzing Graphs of Functions and Relations
CCSS.MATH.CONTENT.HSF.IF.C.7   CCSS.MATH.CONTENT.HSF.IF.C.7.E
CCSS.MATH.CONTENT.HSF.IF.C.7.A   CCSS.MATH.CONTENT.HSF.IF.C.8
CCSS.MATH.CONTENT.HSF.IF.C.7.B   CCSS.MATH.CONTENT.HSF.IF.C.8.A
CCSS.MATH.CONTENT.HSF.IF.C.7.C   CCSS.MATH.CONTENT.HSF.IF.C.8.B
CCSS.MATH.CONTENT.HSF.IF.C.7.D   CCSS.MATH.CONTENT.HSF.IF.C.9

1-3   Continuity, End Behavior, and Limits
CCSS.MATH.CONTENT.HSF.IF.B.4   CCSS.MATH.CONTENT.HSF.IF.C.9
CCSS.MATH.CONTENT.HSF.IF.B.5   CCSS.MATH.CONTENT.HSF.IF.C.7.E

1-4   Extrema and Average Rates of Change
CCSS.MATH.CONTENT.HSF.IF.A.1   CCSS.MATH.CONTENT.HSF.IF.A.3
CCSS.MATH.CONTENT.HSF.IF.A.2   CCSS.MATH.CONTENT.HSF.IF.C.7.A

1-5   Parent Functions and Transformations
CCSS.MATH.CONTENT.HSF.BF.B.3

1-6   Function Operations and Composition of Functions
CCSS.MATH.CONTENT.HSF.BF.A.1   CCSS.MATH.CONTENT.HSF.BF.A.1.C
CCSS.MATH.CONTENT.HSF.BF.A.1.A   CCSS.MATH.CONTENT.HSF.BF.B.3
CCSS.MATH.CONTENT.HSF.BF.A.1.B

1-7   Inverse Relations and Functions
CCSS.MATH.CONTENT.HSF.BF.B.4   CCSS.MATH.CONTENT.HSF.BF.B.4.C
CCSS.MATH.CONTENT.HSF.BF.B.4.A   CCSS.MATH.CONTENT.HSF.BF.B.4.D
CCSS.MATH.CONTENT.HSF.BF.B.4.B   CCSS.MATH.CONTENT.HSF.BF.B.5

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Unit 2 - Power, Polynomial, and Rational Functions

2-1   Power and Radical Functions
CCSS.MATH.CONTENT.HSF.IF.C.7.B

2-2   Polynomial Functions
CCSS.MATH.CONTENT.HSF.IF.C.7.C

2-3   The Remainder and Factor Theorems
CCSS.MATH.CONTENT.HSA.APR.B.2

2-4   Zeros of Polynomial Functions
CCSS.MATH.CONTENT.HSF.IF.C.7.C   CCSS.MATH.CONTENT.HSA.APR.B.3

2-5   Rational Functions
CCSS.MATH.CONTENT.HSF.IF.C.7.D   CCSS.MATH.CONTENT.HSA.CED.A.1

2-6   Nonlinear Inequalities
CCSS.MATH.CONTENT.HSA.CED.A.3

Unit 3 - Exponential and Logarithmic Functions

3-1   Exponential Functions

CCSS.MATH.CONTENT.HSF.IF.C.7.E   CCSS.MATH.CONTENT.HSF.LE.A.1.C
CCSS.MATH.CONTENT.HSF.IF.C.8.B   CCSS.MATH.CONTENT.HSF.LE.A.2
CCSS.MATH.CONTENT.HSF.LE.A.1   CCSS.MATH.CONTENT.HSF.LE.A.3
CCSS.MATH.CONTENT.HSF.LE.A.1.A   CCSS.MATH.CONTENT.HSF.LE.A.4
CCSS.MATH.CONTENT.HSF.LE.A.1.B   CCSS.MATH.CONTENT.HSA.CED.A.1

3-2   Logarithmic Functions

CCSS.MATH.CONTENT.HSF.IF.B.4   CCSS.MATH.CONTENT.HSF.IF.C.7.E
CCSS.MATH.CONTENT.HSF.IF.B.5   CCSS.MATH.CONTENT.HSF.BF.B.5
CCSS.MATH.CONTENT.HSF.IF.B.6

3-3   Properties of Logarithms

CCSS.MATH.CONTENT.HSF.BF.B.5   CCSS.MATH.CONTENT.HSF.LE.A.4

3-4   Exponential and Logarithmic Equations

CCSS.MATH.CONTENT.HSA.CED.A.1   CCSS.MATH.CONTENT.HSA.CED.A.3
CCSS.MATH.CONTENT.HSA.CED.A.2   CCSS.MATH.CONTENT.HSA.CED.A.4

3-5   Modeling with Nonlinear Regression

CCSS.MATH.CONTENT.HSF.LE.A.1   CCSS.MATH.CONTENT.HSF.LE.A.4
CCSS.MATH.CONTENT.HSF.LE.A.3   CCSS.MATH.CONTENT.HSF.LE.B.5

Unit 4 - Trigonometric Functions

4-1   Right Triangle Trigonometry
CCSS.MATH.CONTENT.HSF.TF.A.3   CCSS.MATH.CONTENT.HSG.SRT.C.6
CCSS.MATH.CONTENT.HSF.TF.B.5   CCSS.MATH.CONTENT.HSG.SRT.C.7
CCSS.MATH.CONTENT.HSG.SRT.C.6   CCSS.MATH.CONTENT.HSG.SRT.C.8
CCSS.MATH.CONTENT.HSG.SRT.C.7

4-2   Degrees and Radians
CCSS.MATH.CONTENT.HSF.TF.A.1   CCSS.MATH.CONTENT.HSF.TF.A.2

4-3   Trigonometric Functions on the Unit Circle
CCSS.MATH.CONTENT.HSF.TF.A.1   CCSS.MATH.CONTENT.HSF.TF.A.3
CCSS.MATH.CONTENT.HSF.TF.A.2   CCSS.MATH.CONTENT.HSF.TF.A.4

4-4   Graphing Sine and Cosine Functions
CCSS.MATH.CONTENT.HSF.IF.C.7.E   CCSS.MATH.CONTENT.HSF.TF.B.6
CCSS.MATH.CONTENT.HSF.TF.B.5   CCSS.MATH.CONTENT.HSF.TF.B.7

4-5   Graphing Other Trigonometric Functions
CCSS.MATH.CONTENT.HSF.TF.B.5   CCSS.MATH.CONTENT.HSF.TF.B.7
CCSS.MATH.CONTENT.HSF.TF.B.6   CCSS.MATH.CONTENT.HSF.IF.C.7.E

4-6   Inverse Trigonometric Functions
CCSS.MATH.CONTENT.HSF.TF.B.6   CCSS.MATH.CONTENT.HSF.TF.B.7

4-7   The Law of Sines and the Law of Cosines
CCSS.MATH.CONTENT.HSG.SRT.D.10   CCSS.MATH.CONTENT.HSG.SRT.D.11

Unit 5 - Trigonometric Identities and Equations

5-1   Trigonometric Identities
CCSS.MATH.CONTENT.HSF.TF.C.8   CCSS.MATH.CONTENT.HSF.TF.C.9

5-2   Verifying Trigonometric Identities
CCSS.MATH.CONTENT.HSF.TF.C.8   CCSS.MATH.CONTENT.HSF.TF.C.9

5-3   Solving Trigonometric Equations Exercises
CCSS.MATH.CONTENT.HSF.TF.B.7

5-4   Sum and Difference Formulas
CCSS.MATH.CONTENT.HSF.TF.C.9

5-5   Multiple-Angle and Product-to-Sum Identities
CCSS.MATH.CONTENT.HSF.TF.C.9

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Unit 6 - Systems of Equations and Matrices

6-1   Multivariable Linear Systems and Row Operations
CCSS.MATH.CONTENT.HSA.REI.C.5   CCSS.MATH.CONTENT.HSA.REI.C.8
CCSS.MATH.CONTENT.HSA.REI.C.6   CCSS.MATH.CONTENT.HSA.REI.C.9
CCSS.MATH.CONTENT.HSA.REI.C.7

6-2   Matrix Multiplication, Inverses, and Determinants
CCSS.MATH.CONTENT.HSN.VM.C.6   CCSS.MATH.CONTENT.HSN.VM.C.10
CCSS.MATH.CONTENT.HSN.VM.C.7   CCSS.MATH.CONTENT.HSN.VM.C.11
CCSS.MATH.CONTENT.HSN.VM.C.8   CCSS.MATH.CONTENT.HSN.VM.C.12
CCSS.MATH.CONTENT.HSN.VM.C.9

6-3   Solving Linear Systems Using Inverses and Cramer's Rule
CCSS.MATH.CONTENT.HSA.REI.C.5   CCSS.MATH.CONTENT.HSA.REI.C.6

6-4   Partial Fractions
CCSS.MATH.CONTENT.HSA.APR.D.7   CCSS.MATH.PRACTICE.MP5
CCSS.MATH.PRACTICE.MP1   CCSS.MATH.PRACTICE.MP8

6-5   Linear Optimization
CCSS.MATH.CONTENT.HSA.CED.A.2   CCSS.MATH.CONTENT.HSA.CED.A.3

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Unit 7 - Conic Sections and Parametric Equations

7-1   Parabolas
CCSS.MATH.CONTENT.HSG.GPE.A.2

7-2   Ellipses and Circles
CCSS.MATH.CONTENT.HSG.GPE.A.1   CCSS.MATH.CONTENT.HSG.GPE.A.3

7-3   Hyperbolas
CCSS.MATH.CONTENT.HSG.GPE.A.3

7-4   Rotations of Conic Sections
CCSS.MATH.CONTENT.HSG.GPE.A.1
CCSS.MATH.CONTENT.HSG.GPE.A.2
CCSS.MATH.CONTENT.HSG.GPE.A.3

7-5   Parametric Equations
CCSS.MATH.CONTENT.HSA.CED.A.2   CCSS.MATH.PRACTICE.MP2
CCSS.MATH.PRACTICE.MP1   CCSS.MATH.PRACTICE.MP5

Unit 8 – Vectors

8-1   Introduction to Vectors
CCSS.MATH.CONTENT.HSN.VM.A.1   CCSS.MATH.CONTENT.HSN.VM.B.4.B
CCSS.MATH.CONTENT.HSN.VM.A.2   CCSS.MATH.CONTENT.HSN.VM.B.4.C
CCSS.MATH.CONTENT.HSN.VM.A.3   CCSS.MATH.CONTENT.HSN.VM.B.5
CCSS.MATH.CONTENT.HSN.VM.B.4   CCSS.MATH.CONTENT.HSN.VM.B.5.A
CCSS.MATH.CONTENT.HSN.VM.B.4.A   CCSS.MATH.CONTENT.HSN.VM.B.5.B

8-2   Vectors in the Coordinate Plane
CCSS.MATH.CONTENT.HSN.VM.A.1   CCSS.MATH.CONTENT.HSN.VM.B.4.C
CCSS.MATH.CONTENT.HSN.VM.A.2   CCSS.MATH.CONTENT.HSN.VM.B.5
CCSS.MATH.CONTENT.HSN.VM.A.3   CCSS.MATH.CONTENT.HSN.VM.B.5.A
CCSS.MATH.CONTENT.HSN.VM.B.4.A   CCSS.MATH.CONTENT.HSN.VM.B.5.B

8-3   Dot Products and Vector Projections
CCSS.MATH.CONTENT.HSN.VM.B.4   CCSS.MATH.CONTENT.HSN.VM.B.5
CCSS.MATH.CONTENT.HSN.VM.B.4.A   CCSS.MATH.CONTENT.HSN.VM.B.5.A
CCSS.MATH.CONTENT.HSN.VM.B.4.B   CCSS.MATH.CONTENT.HSN.VM.B.5.B
CCSS.MATH.CONTENT.HSN.VM.B.4.C

8-4   Vectors in Three-Dimensional Space
CCSS.MATH.CONTENT.HSG.GMD.A.1   CCSS.MATH.CONTENT.HSG.GMD.A.3
CCSS.MATH.CONTENT.HSG.GMD.A.2   CCSS.MATH.CONTENT.HSG.GMD.B.4

8-5   Dot and Cross Products of Vectors in Space
CCSS.MATH.CONTENT.HSN.VM.A.1   CCSS.MATH.PRACTICE.MP5
CCSS.MATH.PRACTICE.MP1

Unit 9 - Polar Coordinates and Complex Numbers

9-1   Polar Coordinates

CCSS.MATH.CONTENT.HSN.CN.B.4   CCSS.MATH.PRACTICE.MP2
CCSS.MATH.CONTENT.HSN.CN.B.5   CCSS.MATH.PRACTICE.MP6
CCSS.MATH.CONTENT.HSN.CN.B.6   CCSS.MATH.PRACTICE.MP7
CCSS.MATH.PRACTICE.MP1   CCSS.MATH.PRACTICE.MP8

9-2   Graphs of Polar Equations

CCSS.MATH.PRACTICE.MP1   CCSS.MATH.PRACTICE.MP5
CCSS.MATH.PRACTICE.MP3

9-3   Polar and Rectangular Forms of Equations

CCSS.MATH.CONTENT.HSN.CN.B.4   CCSS.MATH.PRACTICE.MP1

9-4   Polar Forms of Conic Sections

CCSS.MATH.PRACTICE.MP1   CCSS.MATH.PRACTICE.MP7
CCSS.MATH.PRACTICE.MP5

9-5   Complex Numbers and DeMoivre's Theorem

CCSS.MATH.CONTENT.HSN.CN.B.4   CCSS.MATH.CONTENT.HSN.CN.B.5

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Unit 10 - Sequences and Series

10-1 Sequences, Series, and Sigma Notation
CCSS.MATH.CONTENT.HSF.IF.A.3   CCSS.MATH.CONTENT.HSF.BF.A.2

10-2 Arithmetic Sequences and Series
CCSS.MATH.CONTENT.HSF.BF.A.2   CCSS.MATH.PRACTICE.MP8
CCSS.MATH.CONTENT.HSF.LE.A.2

10-3 Geometric Sequences and Series
CCSS.MATH.CONTENT.HSF.BF.A.2   CCSS.MATH.CONTENT.HSA.SSE.B.4
CCSS.MATH.CONTENT.HSF.LE.A.2   CCSS.MATH.PRACTICE.MP8

10-4 Mathematical Induction
CCSS.MATH.CONTENT.HSA.APR.C.5

10-5 The Binomial Theorems
CCSS.MATH.CONTENT.HSA.APR.C.5

10-6 Functions as Infinite Series
CCSS.MATH.CONTENT.HSF.BF.A.1   CCSS.MATH.CONTENT.HSF.BF.A.1.B
CCSS.MATH.CONTENT.HSF.BF.A.1.A   CCSS.MATH.CONTENT.HSF.BF.A.1.C

Unit 11 - Inferential Statistics

11-1 Descriptive Statistics
CCSS.MATH.CONTENT.HSS.IC.A.1   CCSS.MATH.CONTENT.HSS.IC.A.2

11-2 Probability Distributions
CCSS.MATH.CONTENT.HSS.MD.A.1   CCSS.MATH.CONTENT.HSS.MD.A.3
CCSS.MATH.CONTENT.HSS.MD.A.2   CCSS.MATH.CONTENT.HSS.MD.A.4

11-3 The Normal Distribution
CCSS.MATH.CONTENT.HSS.ID.A.4

11-4 The Central Limit Theorem
CCSS.MATH.CONTENT.HSS.ID.A.1   CCSS.MATH.PRACTICE.MP1
CCSS.MATH.CONTENT.HSS.ID.A.2   CCSS.MATH.PRACTICE.MP6
CCSS.MATH.CONTENT.HSS.ID.A.3   CCSS.MATH.PRACTICE.MP8
CCSS.MATH.CONTENT.HSS.ID.A.4

11-5 Confidence Intervals
CCSS.MATH.CONTENT.HSS.IC.B.3   CCSS.MATH.CONTENT.HSS.IC.B.5
CCSS.MATH.CONTENT.HSS.IC.B.4   CCSS.MATH.CONTENT.HSS.IC.B.6

11-6 Hypothesis Testing
CCSS.MATH.CONTENT.HSS.IC.B.6   CCSS.MATH.CONTENT.HSS.MD.B.7

11-7 Correlation and Linear Regression
CCSS.MATH.CONTENT.HSS.ID.B.5   CCSS.MATH.CONTENT.HSS.ID.B.6.C
CCSS.MATH.CONTENT.HSS.ID.B.6   CCSS.MATH.CONTENT.HSS.ID.C.7
CCSS.MATH.CONTENT.HSS.ID.B.6.A   CCSS.MATH.CONTENT.HSS.ID.C.8
CCSS.MATH.CONTENT.HSS.ID.B.6.B   CCSS.MATH.CONTENT.HSS.ID.C.9

Unit 12 - Limits and Derivatives

12-1 Estimating Limits Graphically

CCSS.MATH.CONTENT.HSF.IF.B.6   CCSS.MATH.CONTENT.HSF.IF.C.7

12-2 Evaluating Limits Algebraically

CCSS.MATH.CONTENT.HSF.IF.B.6

12-3 Tangent Lines and Velocity

CCSS.MATH.CONTENT.HSG.C.A.4

12-4 Derivatives

CCSS.MATH.CONTENT.HSG.C.B.5

12-5 Area Under a Curve and Integrations

CCSS.MATH.CONTENT.HSG.C.B.5

12-6 The Fundamental Theorem of Calculus

CCSS.MATH.PRACTICE.MP1
CCSS.MATH.PRACTICE.MP3
CCSS.MATH.PRACTICE.MP5
CCSS.MATH.PRACTICE.MP7