SACRAMENTO CITY UNIFIED SCHOOL DISTRICT
BOARD OF EDUCATION

Agenda Item 9.1f

Meeting Date: August 18, 2016

Subject: Approve Course of Study for Integrated Math 3 Plus; MIS303, MIS304

- ☐ Information Item Only
- ☒ Approval on Consent Agenda
- ☐ Conference (for discussion only)
- ☐ Conference/First Reading (Action Anticipated: _____)
- ☐ Conference/Action
- ☐ Action
- ☐ Public Hearing

Division: Curriculum and Instruction

Recommendation: Approve the courses of study for "Integrated Math 3 Plus"

Background/Rationale: SCUSD has elected the integrated pathway of mathematics to implement the CCSS-M at the high school level, which has been phased in over a three-year period: Math 1 in 2014-15; Math 2 and Math 2 Plus in 2015-16; and Math 3 and Math 3 Plus in 2016-17. The integrated pathway (Math 1, Math 2, and Math 3) is a sequence of courses that build upon the foundation established in elementary and middle school mathematics. These courses develop mathematics across multiple categories, including a blend of Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability concepts throughout all three courses.

The "plus" (+) standards are additional standards written in the CCSS-M that prepare students for advanced math courses, like AP Calculus and college-level math courses. High schools will generally offer two options for mathematics courses. In Option 1, students take Math 1, Math 2, and Math 3, followed by Pre- Calculus (or other 4th course options, e.g. Statistics or College Ready Math). In Option 2, students take Math 1, Math 2 Plus, and Math 3 Plus, followed by AP Calculus AB. Math 2 Plus and Math 3 Plus have the Pre-Calculus standards embedded within them, which prepares students to go directly to AP Calculus AB upon completion of those 2 courses. Both options meet the University of California A – G requirements, and will prepare students for college and career opportunities upon graduation. The plus courses are specifically designed for students who can move through the mathematics content at a faster pace, and who may be interested in further higher-level mathematics courses in college.

These courses meet the University of California A – G requirements, and will prepare students for college and career opportunities upon graduation.

Financial Considerations: None

LCAP Goal(s): College, Career and Life Ready Graduates

Documents Attached:
1. Courses of Study for “Integrated Math 3 Plus”

Estimated Time of Presentation: N/A	
Submitted by:	Matt Turkie, Interim Assistant Superintendent of Curriculum and Instruction and Dr. Iris Taylor, Interim Chief Academic Officer
Approved by:	José L Banda, Superintendent

Sacramento City Unified School District

COURSE OF STUDY

FOR

Integrated Math 3 Plus

Course Codes:
INTEGRATED MATH 3 Plus 1P / MIS303
INTEGRATED MATH 3 Plus 2P / MIS304

Segment	High School
Length of Course	One Year
Developed by	Math Training Specialists (lead: Suzie Craig)
First Edition	Spring 2016

SACRAMENTO CITY UNIFIED SCHOOL DISTRICT

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Integrated Mathematics 2

SECTION ONE — GENERAL INFORMATION

COURSE DESCRIPTION

Integrated Math 3 Plus includes all of the standards and lessons from Math 3, with additional Pre-Calculus "plus" standards embedded throughout the course. Students who successfully complete Math 2 Plus and Math 3 Plus will have learned all of the Pre-Calculus standards, and would be prepared to take AP Calculus AB the following year.

Integrated Math 3 Plus is comprised of standards selected from the high school conceptual categories (Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability.) The focus of Math 3 Plus is on expanding students' repertoire of functions to include polynomial, rational, and radical functions. They also expand their study of right-triangle trigonometry to include general triangles. Students will bring together all of their experience with functions and geometry (from Math 1, 2, and 3) to create models and solve contextual problems. Additionally, students in Math 3 Plus will work with vector and matrix quantities, graph rational functions, graph polar coordinates and curves, prove trigonometric identities, and understand the inverse relationship between exponents and logarithms and use it solve problems.

RATIONALE

SCUSD has elected the integrated pathway of mathematics to implement the CCSS-M at the high school level, which will be phased in over a three-year period: Math 1 in 2014-15; Math 2 and Math 2 Plus in 2015-16; and Math 3 and Math 3 Plus in 2016-17. The integrated pathway (Math 1, Math 2, and Math 3) is a sequence of courses that build upon the foundation established in elementary and middle school mathematics. The “plus” (+) standards are additional standards written in the CCSS-M that prepare students for advanced math courses, like AP Calculus and college-level math courses. High schools will generally offer two options for mathematics courses. In Option 1, students take Math 1, Math 2, and Math 3, followed by Pre- Calculus (or other 4th course options, e.g. Statistics or College Ready Math). In Option 2, students take Math 1, Math 2 Plus, and Math 3 Plus, followed by AP Calculus AB. Math 2 Plus and Math 3 Plus have the Pre-Calculus standards embedded within them, which prepares students to go directly to AP Calculus AB upon completion of those 2 courses. Both options meet the University of California A – G requirements, and will prepare students for college and career opportunities upon graduation. This course is specifically designed for students who can move through the mathematics content at a faster pace, and who may be interested in further higher-level mathematics courses in college.

COURSE GOALS

Upon completion of this course, students will be able to:

- Understand the structural similarities between the system of polynomials and the system of integers.
- Identify zeros of polynomials and make connections between zeros of polynomials and solutions of polynomial equations.
- Work extensively with a variety of function types, including rational, radical, polynomial, exponential, logarithmic, and trigonometric
- Develop the Laws of Sines and Cosines for general triangles
- Model simple periodic phenomena with trigonometric functions
- Perform simulations to model statistical data for a situation, and recognize how randomness plays a role in the conclusions that may be drawn.
- Identify appropriate types of functions to model a situation, adjust parameters to improve the model, and compare models.
- (+) Work extensively with vector and matrix quantities
- (+) Graph rational functions, graph polar coordinates and curves
- (+) Prove trigonometric identities, and understand the inverse relationship between exponents and logarithms and use it solve problems.

COURSE STANDARDS

CCSS-M Standards for Mathematical Practice (K-12):

1. Make Sense of Problems and Persevere in Solving Them
2. Reason Abstractly and Quantitatively
3. Construct Viable Arguments and Critique the Reasoning of Others

   3.1 (CA) Students build proofs by induction and proofs by contradiction
4. Model with Mathematics
5. Use Appropriate Tools Strategically
6. Attend to Precision
7. Look For and Make Use of Structure
8. Look For and Express Regularity in Repeated Reasoning

CA CCSS-M High School Content Standards for Integrated Math 3 Plus:

Number and Quantity

The Complex Number System

- Represent complex numbers and their operations on the complex plane (N-CN.4+)
- Use complex numbers in polynomial identifies and equations (N-CN.8+,9+)

Vector and Matrix Quantities

- Perform operations on matrices and use matrices in applications (+ N-VM.6 - 12)

Algebra

Seeing Structure in Expressions

- Interpret the structure of expressions (A-SSE.1–2)
- Write expressions in equivalent forms to solve problems (A-SSE.4)

Arithmetic with Polynomials and Rational Expressions

- Perform arithmetic operations on polynomials (A-APR.1)
- Understand the relationship between zeros and factors of polynomials (A-APR.2,3)
- Use polynomial identities to solve problems (A-APR.4,5+)
- Rewrite rational expressions (A-APR.6,7+)

Creating Equations

- Create equations that describe numbers of relationships (A-CED.1,2,3,4)

Reasoning with Equations and Inequalities

- Understand solving equations as a process of reasoning and explain the reasoning (A-REI.2)
- Solve systems of equations (+A-REI.8,9)
- Represent and solve equations and inequalities graphically (A-REI.11)

Functions

Interpreting Functions

- Interpret functions that arise in applications in terms of the context (F-IF.4,5,6)
- Analyze functions using different representations (F-IF.7b,7c,7d+,7e,8,9,10(CA) 11(CA))

Building Functions

- Build a function that models a relationship between two quantities (F-BF.1b,1c+)
- Build new functions from existing functions (F-BF.3,4a,4b+,4c+,5+)

Linear, Quadratic, and Exponential Models

- Construct and compare linear, quadratic, and exponential models and solve problems (F-LE.4,4.1(CA),4.2(CA),4.3(CA))

Trigonometric Functions

- Extend the domain of trigonometric functions using the unit circle (F-TF.1,2,2.1(CA),3+,4+)
- Model periodic phenomena with trigonometric functions (F-TF.56+,7+)
- Prove and apply trigonometric identities (F-TF.9+,10+(CA))

Geometry

Similarity, Right Triangles, and Trigonometry

- Apply trigonometry to general triangles (G-SRT.9+,10+,11+)

Expressing Geometric Properties with Equations

- Translate between the geometric description and the equations for a conic section (G-GPE.3.1(CA))

Geometric Measurement and Dimension

- Visualize relationships between two-dimensional and three-dimensional objects (G-GMD.4)

Modeling with Geometry

- Apply geometric concepts in modeling situations (G-MG.1,2,3)

Statistics and Probability

Intepreting Cateogrical and Quantitative Data

- Summarize, represent, and interpret data on a single count or measurement variable (S-ID.4)

Making Inferences and Justifying Conclusions

- Understand and evaluate random processes underlying statistical experiments (S-IC.1,2)
- Make inferences and justify conclusions from sample surveys, experiments, and observational studies (S-IC.3,4,5,6)

Using Probability to Make Decisions

- Use probability to evaluate outcomes of decisions (S-MD.6+,7+)

To read the descriptions of the Standards for Mathematical Practice and to read the specific Math 3 Content Standards, see the CA Framework for Math 3.

INSTRUCTIONAL MATERIALS

Textbook: CCSS IP Mathematics III by Walch Education (Publisher) 2015 www.walch.com **and** CCSS IP Honors Supplement for SCUSD Mathematics III by Walch Education (Publisher) 2016

SUPPLEMENTARY MATERIALS:

SCUSD Math 3 Curriculum Map *and* SCUSD Math 3+ Yeat-At-A-Glance, found at www.scusd-math.wikispaces.com/Math3

SUGGESTED AVERAGE TIME FOR COVERING MAJOR UNITS

Units	Content Standards
Unit 1: Inferences and Conclusions from Data ≈40 days	S-ID.4 S-IC.1-6 S-MD.6-7
Unit 2A Polynomials Relationships ≈40 days	A-SSE.1-4 A-REI.11 A-APR.1-5 N-CN.8-9 F-IF.7c *(+)N-VM.6 – 12* *(+)A-REI.8,9*
Unit 2B: Rational and Radical Relationships ≈20 days	A-SSE.1–2 A-REI.1,2,11 A-APR.6,7 *(+)F-IF.7d*
Unit 3: Trigonometry of General Triangles and Trigonometric Functions ≈25 days	F-TF.1,2, **2.1(CA)**,5 G-SRT.9-11 *(+)F-IF.10,11 (CA)* *(+)F-TF.3,4,6,7,9,10* *(+)F-BF.4d*
Unit 4A: Mathematical Modeling of Inverse, Logarithmic and Trigonometric Functions ≈25 days	F-BF.4a F-LE.4 **F-LE.4.1, 4.2, 4.3 (CA)** F-IF.4-8 *(+)F-BF.1c,4b,4c,5*
Unit 4B: Mathematical Modeling and Choosing a Model ≈35 days	A-CED 1-4 F-BF 1b,3 F-IF 4-7,9 G-GMD.4 G-MG 1-3

TEACHER RESOURCES

- http://www.corestandards.org/
- www.walchconnect.com
- www.scusd-math.wikispaces.com/Math3
- www.learnzillion.com
- www.illustrativemathematics.org
- www.map.mathshell.org
- https://www.engageny.org/

RECOMMENDED STUDENT RESOURCES

- www.walchconnect.com
- See “Recommended Resources” in the Walch textbook (Teacher Resource books) for each lesson. *This is a list of websites that can be used as additional resources. Some websites are games; others provide additional examples and/or explanations. The links for these resources are live in the PDF version of the Teacher Resource.*

SECTION TWO — COURSE UNITS

See our SCUSD Curriculum Map for Math 3 to access links to documents, tasks, and resources related to the lessons within each unit. Our curriculum map is available here.

UNIT 1: Inferences and Conclusions from Data

Unit 1 focuses on interpreting categorical and quantitative data, performing and understanding statistical experiments, and utilizing probability in evaluating outcomes and decisions. Students will gather data using a variety of methods, analyze and make inferences using data, and use approximate normal distributions to make decisions.

Standards Addressed
CCSS-M Standards in Unit 1: S-ID.4; S-IC.1-6; S-MD.6-7

Instructional Objectives
Students will use technology and other tools to:

- Understand normal and uniform distribution, and explore the graphs of statistical data in a variety of contexts.
- Calculate probabilities, mean, and standard deviation for given data sets, and interpret their meaning in terms of the data/context provided.
- Calculate and utilize z-scores for data that is normally distributed, and interpret the results in terms of a real-world context.
- Understand and explain the impact of a sample population on statistics, and the importance of a sample being representative of the population
- Use different methods to gather a random sample from a population, e.g. using a deck of cards or a random number generator.
- Evaluate the reasonableness of a data collection method to account for sampling bias.
- Create a model to simulate a real life situation, and use that model to make decisions.
- Understand the purposes of and explain the differences between a sample survey, experiment, and observational study.
- Calculate the standard error or proportion, standard error of mean, and margin of error in order to make predictions about the population.
- Create and implement a simulation for a given real-world situation.
- Apply an understanding of probability to real-world situations in order to assess the fairness of a given situation

Suggested Activities:

In the following assignment, "Unfair Profiling", students will implement a simulation based on given data to justify a claim about unfair police demographic profiling. In this assignment, students will design a simulation in which they will identify the treatment, model the trial using a graphing calculator or random number generator, calculate the sample mean and interpret its results, and justify a claim based on the simulation results.

Suggested Assessments:

Formative Assessment Strategies

- Use informal formative assessment strategies on a daily basis, for example, in the form of exit tickets, individual whiteboards, and/or student engagement in small group and whole group discussions
- Use appropriate problems from the textbook lessons (including the Problem-Based Task) in class and for homework
- Use links to the online tasks and other resources from our district curriculum map to assess students during the unit

Summative Assessment Strategies

- Unit 1 Assessment from Walch Textbook; **or**
- *Online*: CCSS IP Math 3 Unit 1 Assessment from www.walchconnect.com; **or**
- Customized online assessment on Unit 1 standards from https://scusd.illuminateed.com

UNIT 2A: Polynomial Relationships

Unit 2A focuses on polynomial functions (operations, proving identities, solving, and graphing.) Students will deepen their understanding of the set of polynomials, and will understand how polynomial identities help with factoring and expanding polynomials, leading to the binomial theorem. They will identify and analyze key features of polynomial graphs and learn how the degree and sign of the leading coefficient can be used to determine end behavior of a graph.
The honors lessons in this unit focus on vector and matrix quantities. Students will understand the definition of a vector, perform operations with vectors (add, subtract, and multiply by a scalar), and solve problems involving velocity and other quantities that can be represented by vectors. Students will use matrices to represent data, perform operations on matrices (add, subtract, and multiply), and use matrices to represent and solve a system of linear equations.

Standards Addressed
CCSS-M Standards in Unit 2A:
A-SSE.1-4; A-REI.11; A-APR.1-5; N-CN.8-9; F-IF.7c, *(+)N-VM.6 – 12; (+)A-REI.8,9*

Instructional Objectives
Students will be able to:

- Add, subtrct, and multiply polynomials
- Prove polynomial identities (including complex polynomial identities), and use the binomial theorem to expand a polynomial
- Graph polynomial functions from mathematical and real-world contexts; interpret key features of the graph in terms of the context
- Find the sum of a finite and infinite geometric series, related to a mathematical or real-world context
- (+) Use operations with matrices to solve problems
- (+) Find the inverse of a matrix and use it to solve a system of equations

Suggested Activities
In the following assignment, "Which Refinancing Option is Best?", students find the sum for an amortized loan, in order to decide whether to recommend a 30-year fixed mortgage or a 15-year fixed mortgage. Students will calculate the monthly interest rate, use the summation formula for a finite geometric series to estimate a monthly mortgage payment for each option, and make a recommendation for refinancing based on their calculations.

Suggested Assessment
Formative Assessment Strategies

- Use informal formative assessment strategies on a daily basis, for example, in the form of exit tickets, individual whiteboards, and/or student engagement in small group and whole group discussions

- Use appropriate problems from the textbook lessons (including the Problem-Based Task) in class and for homework
- Use links to the online tasks and other resources from our district curriculum map to assess students during the unit

Summative Assessment Strategies

- Unit 2A Assessment from Walch Textbook; **or**
- *Online*: CCSS IP Math 3 Unit 2A Assessment from www.walchconnect.com;
- **or** Customized online assessment on Unit 2A standards from https://scusd.illuminateed.com

UNIT 2B: Rational and Radical Relationships

In Unit 2B, students perform operations with rational expressions, and solve both rational and radical equations. Students explore rational expressions as a system similar to rational numbers, and find sums, differences, products, and quotients. Students will identify rational expressions that represent real world situations, and they will use rational expressions to make sense of and solve real-world problems. *The honors lesson in this unit focuses on graphing rational functions, identifying zeros and asymptotes, and showing end behavior.*

Standards Addressed
CCSS-M Standards in Unit 2B: A-SSE.1–2; A-REI.1,2,11; A-APR.6,7; *(+)F-IF.7d*

Instructional Objectives
Students will be able to:

- Add, subtract, multiply, and divide rational expressions
- Solve rational and radical equations, in mathematical and real-world context
- (+) Graph rational functions and identify key features

Suggested Activities
In the following assignment, "Snow Removal", students will create a rational equation from a real-world scenario regarding the amount of time it takes for two people to complete a snow removal job (compared to each individual working alone). Students will solve the equation by hand or using technology, and interpret their results in terms of the context.

Suggested Assessment:
Formative Assessment Strategies

- Use informal formative assessment strategies on a daily basis, for example, in the form of exit tickets, individual whiteboards, and/or student engagement in small group and whole group discussions
- Use appropriate problems from the textbook lessons (including the Problem-Based Task) in class and for homework
- Use links to the online tasks and other resources from our district curriculum map to assess students during the unit

Summative Assessment Strategies

- Unit 2B Assessment from Walch Textbook; **or**
- *Online* CCSS IP Math 3 Unit 2B Assessment from www.walchconnect.com; **or**
- Customized online assessment on Unit 2B standards from https://scusd.illuminateed.com

UNIT 3: Trigonometry of General Triangles and Trigonometric Functions

In Unit 3, students will explore graphs of trigonometric functions in connection to the unit circle. They will understand radian measure and explain the connection between the unit circle and graphing trig functions on a coordinate plane. Students will prove non-right triangle trig laws (Law of Sines and Law of Cosines) and apply them to real-world scenarios. Students will use periodic trig functions (sine, cosine, and tangent) to model data and analyze amplitude, frequency, and midline. *The honors lessons in this unit focus on graphing polar coordinates and curves, using the unit circle, using trig inverse functions, and proving trigonometric identities. Students will convert between polar and rectangular coordinate systems and understand and graph functions defined parametrically. Students will use special triangles and the unit circle to determine trigonometric values of certain angles, prove addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems, and prove the half angle and double angle identities for sine and cosine and use them to solve problems. Students will use inverse functions to solve trigonometric equations that arise in modeling contexts, and will produce an invertible function from a non-invertible function by restricting the domain.*

Standards Addressed

CCSS-M Standards in Unit 3: F-TF.1,2,**2.1(CA)**,5; G-SRT.9-11; *(+)F-IF.10,11* ***(CA);*** *(+)F-TF.3,4,6,7,9,10; (+)F-BF.4d*

Instructional Objectives

Students will be able to:

- Understand the definition of radians and their relationship to the unit circle
- Use the unit circle to understanding special angles and trigonometric functions
- Prove the Law of Sines and Cosines, and apply them to real-world contexts in order to solve problems involving triangles
- Analyze the graphs trigonometric functions in mathematical and real-world contexts, and interpret key features of the graph (e.g. amplitude, frequency, midline) in terms of the situation that it models
- (+) Graph and interpret parametric equations and polar coordinates and curves
- (+) Prove trigonometric identities and use them to solve problems
- (+) Restrict the domain to find inverse trigonometric functions
- (+) Use inverse trig functions to solve problems

Suggested Activities

In the following assignment, "Spring Displacement", students will analyze the graph of a trigonometric function that models the motion of a spring over time, and use it to create a new graph that has twice the amplitude and half the period.

Suggested Assessment:

Formative Assessment Strategies

- Use informal formative assessment strategies on a daily basis, for example, in the form of exit tickets, individual whiteboards, and/or student engagement in small group and whole group discussions
- Use appropriate problems from the textbook lessons (including the Problem-Based Task) in class and for homework
- Use links to the online tasks and other resources from our district curriculum map to assess students during the unit

Summative Assessment Strategies

- Unit 3 Assessment from Walch Textbook; **or**
- *Online* CCSS IP Math 3 Unit 3 Assessment from www.walchconnect.com;
- Customized online assessment on Unit 3 standards from https://scusd.illuminateed.com

UNIT 4A: Mathematical Modeling of Inverse, Logarithmic, and Trigonometric Functions

Unit 4A focuses on creating models using logarithmic and trigonometric functions. Students will understand the key features of inverse, log and trig graphs, with the understanding of logarithms coming from the exploration of the inverse of exponential functions. Students will comfortably manipulate logarithmic expressions and equations in order to solve real world situations. They will graph exponential and logarithmic functions showing intercepts and end behavior, and graph trigonometric functions showing period, amplitude, and midline. *The honors lessons in this unit focus on composing functions and working with inverses of functions. Students will compose functions, for example if T(y) is the temperature in the atmosphere as a function of height, and h(t) is the height of a weather balloon as a function of time, then T(h(t)) is the temperature at the location of the weather balloon as a function of time. Students will verify by composition that one function is the inverse of another, they will read values of an inverse function from a graph or a table, and they will understand the inverse relationship between exponents and logarithms and use the relationships to solve problems.*

Standards Addressed
CCSS-M Standards in Unit 4A: F-BF.4a; F-LE.4; F-IF.4-8; *(+)F-BF.1c,4b,4c,5*

Instructional Objectives
Students will be able to:

- Determine inverses of quadratic functions and other functions, and use them to solve problems
- Model logarithmic functions as inverses (including natural logarithms)
- Graph logarithmic functions in a mathematical and real-world context, and interpret the graph in terms of a situation that it models
- Graph trigonometric functions to model a situation
- (+) Compose functions, and verify function inverses by composition
- (+) Find inverse functions in various forms, and use them to solve problems

Suggested Activities
In the following assignment, "When Will it Beep?", students will apply their understanding of inverses in order to solve a problem about when a smoke detector will stop beeping. Students will use the given half-life equation in order to write an inverse logarithmic equation, and calculate the amount of time it would take for the smoke detector to stop beeping. Students will make predictions and draw conclusions about the scenario.

Suggested Assessment:

Formative Assessment Strategies

- Use informal formative assessment strategies on a daily basis, for example, in the form of exit tickets, individual whiteboards, and/or student engagement in small group and whole group discussions
- Use appropriate problems from the textbook lessons (including the Problem-Based Task) in class and for homework
- Use links to the online tasks and other resources from our district curriculum map to assess students during the unit

Summative Assessment Strategies

- Unit 4A Assessment from Walch Textbook; **or**
- *Online* CCSS IP Math 3 Unit 4A Assessment from www.walchconnect.com;

UNIT 4B: Mathematical Modeling and Choosing a Model

Unit 4B focuses on using function families to generate models that fit real-world situations. Students will create equations and understand the constraints surrounding models arising from linear, quadratic, and simple rational and exponential situations. They will explore transformations of parent graphs, and make generalizations about them across many different types of functions. Students will compare properties within functions, including recognizing whether a function is even or odd. Function types included in this section are: linear, exponential, quadratic, trigonometric, logarithmic, square root, cube root, absolute value, step, and piecewise. Finally, students will apply geometric methods to identify cross sections, describe objects, and solve design problems.

Standards Addressed
CCSS-M Standards in Unit 4B: A-CED 1-4; F-BF 1b,3; F-IF 4-7,9; G-GMD.4; G-MG 1-3

Instructional Objectives
Students will be able to:

- Create equations (all function types) and represent and interpret constraints, for a real-world context
- Transform parent graphs, recognize odd and even functions, and combine functions together
- Read and identify key features of real-world situation graphs
- Choose an appropriate model for a given situation (e.g. linear, exponential, quadratic, piecewise, step, absolute value, square root, and cube root functions)
- Apply geometric methods to identify cross sections, describe objects, and solve design problems

Suggested Activities
In the following assignment, "Exploring Social Media Growth", students will look at data presented on a graph and in a table, to determine which kinds of functions could be used to model the data. Students will create equations for the data, and compare and interpret the equations in terms of the context.

Suggested Assessment:
Formative Assessment Strategies

- Use informal formative assessment strategies on a daily basis, for example, in the form of exit tickets, individual whiteboards, and/or student engagement in small group and whole group discussions
- Use appropriate problems from the textbook lessons (including the Problem-Based Task) in class and for homework

- Use links to the online tasks and other resources from our district curriculum map to assess students during the unit

Summative Assessment Strategies

- Unit 4B Assessment from Walch Textbook; **or**
- *Online* CCSS IP Math 3 Unit 4B Assessment from www.walchconnect.com; **or**
- Customized online assessment on Unit 4B standards from https://scusd.illuminateed.com