Curriculum Map
Integrated Math CP2 (342)
Saugus High School
Saugus Public Schools
2009-2010

Week 1

Performance Standards

The students will:

10.P.1 Describe, complete, extend, analyze, generalize, and create a wide variety of patterns, including iterative, recursive (e.g., Fibonnacci Numbers), linear, quadratic, and exponential functional relationships.

10.P.6 Solve equations and inequalities including those involving absolute value of linear expressions (e.g., $|x - 2| > 5$) and apply to the solution of problems.

10.P.7 Solve everyday problems that can be modeled using linear, reciprocal, quadratic, or exponential functions. Apply appropriate tabular, graphical, or symbolic methods to the solution. Include compound interest, and direct and inverse variation problems. Use technology when appropriate.

Unit/Topic/Lesson

UNIT ONE

SOLVING EQUATIONS, INEQUALITIES, AND ABSOLUTE VALUES

1. Solving Linear Equations in One Variable.
2. Solving Linear Inequalities in One Variable
3. Solving Compound Inequalities

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To solve linear equations in one variable.
2. To solve and graph linear inequalities in one variable.
3. To solve and graph compound inequalities.

Essential Question

How do you determine which operation should be used and u=in which order to solve an equation for one variable?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter One lessons
2. Chapter One Practice Worksheets
3. Chapter One Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 2

Performance Standards

The students will:

10.P.1 Describe, complete, extend, analyze, generalize, and create a wide variety of patterns, including iterative, recursive (e.g., Fibonnacci Numbers), linear, quadratic, and exponential functional relationships.

10.P.6 Solve equations and inequalities including those involving absolute value of linear expressions (e.g., $|x - 2| > 5$) and apply to the solution of problems.

10.P.7 Solve everyday problems that can be modeled using linear, reciprocal, quadratic, or exponential functions. Apply appropriate tabular, graphical, or symbolic methods to the solution. Include compound interest, and direct and inverse variation problems. Use technology when appropriate.

Unit/Topic/Lesson

UNIT ONE

SOLVING EQUATIONS, INEQUALITIES, AND ABSOLUTE VALUES

1. Solving Compound Inequalities
2. Solving Absolute Values Equations
3. Solving Absolute Value Inequalities

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To solve and graph compound inequalities.
2. To solve absolute value equations.
3. To solve and graph absolute value inequalities.

Essential Question

What is the difference between a disjunction and a conjunction and how does it apply to absolute values?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter One lessons
2. Chapter One Practice Worksheets
3. Chapter One Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Solving Equations, Inequalities, and Absolute Values.

Completion date:

Completed by:

Comments:

Week 3

Performance Standards

The students will:

10.N.2 Simplify numerical expressions, including those involving positive integer exponents or the absolute value, e.g., $3(2^4 - 1) = 45$, $4|3 - 5| + 6 = 14$; apply such simplifications in the solution of problems.

10.P.3 Add, subtract, and multiply polynomials. Divide polynomials by monomials.

Unit/Topic/Lesson

UNIT TWO
POLYNOMIALS

1. Identification and Classification of Polynomial and Monomials
2. The Laws of Exponents

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To classify a polynomial by the degree and the number of terms.
2. To simplify polynomials
3. To use the laws for exponents to simplify monomials.

Essential Question

How do you determine the degree of a polynomial?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter One lessons
2. Chapter One Practice Worksheets
3. Chapter One Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Polynomials.

Completion date:

Completed by:

Comments:

Week 4

Performance Standards

The students will:

10.P.4 Demonstrate facility in symbolic manipulation of polynomial and rational expressions by rearranging and collecting terms; factoring (e.g., $a^2 - b^2 = (a + b)(a - b)$, $x^2 + 10x + 21 = (x + 3)(x + 7)$, $5x^4 + 10x^3 - 5x^2 = 5x^2(x^2 + 2x - 1)$); identifying and canceling common factors in rational expressions; and applying the properties of positive integer exponents.
10.P.5 Find solutions to quadratic equations (with real roots) by factoring, completing the square, or using the quadratic formula. Demonstrate an understanding of the equivalence of the methods.
12.P.7 Find solutions to quadratic equations (with real coefficients and real or complex roots) and apply to the solutions of problems.

Unit/Topic/Lesson

UNIT THREE
QUADRATIC EXPRESSIONS AND EQUATIONS

1. Factoring the Difference of Two Squares
2. Factoring Quadratic Expression
3. Solving Quadratic Equations by Factoring

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To factor the difference of two squares.
2. To factor a quadratic expression by separating it into the product of two binomials.
3. To factor a quadratic trinomial by using the concept of grouping.
4. To solve a quadratic equation by factoring and using the zero-product property.

Essential Question

How are the concepts of factoring a quadratic trinomials and FOIL Method related to each other mathematically?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter One lessons
2. Chapter One Practice Worksheets
3. Chapter One Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 5

Performance Standards

The students will:

10.P.5 Find solutions to quadratic equations (with real roots) by factoring, completing the square, or using the quadratic formula. Demonstrate an understanding of the equivalence of the methods.

12.P.7 Find solutions to quadratic equations (with real coefficients and real or complex roots) and apply to the solutions of problems.

Unit/Topic/Lesson
UNIT THREE
QUADRATIC EXPRESSIONS AND EQUATIONS

1. Solving Quadratic Equations by Completing the Square
2. Solving Quadratic Equations by Using the Quadratic Formula
3. Classifying Solutions Using the Discriminant

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To solve a quadratic equation by completing the square.
2. To solve a quadratic equation by using the Quadratic Formula.
3. To determine the nature of the roots of a quadratic equation using the discriminant

Essential Question

Why does the discriminant determine the number and nature of the roots to a quadratic equation and how does it relate to the Quadratic Formula?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter One lessons
2. Chapter One Practice Worksheets
3. Chapter One Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Quadratic Expressions.

Completion date:

Completed by:

Comments:

Week 6

Performance Standards

The students will:

10.P.4 Demonstrate facility in symbolic manipulation of polynomial and rational expressions by rearranging and collecting terms; factoring (e.g., $a^2 – b^2 = (a + b)(a – b)$, $x^2 + 10x + 21 = (x + 3)(x + 7)$, $5x^4 + 10x^3 – 5x^2 = 5x^2 (x^2 + 2x – 1)$); identifying and canceling common factors in rational expressions; and applying the properties of positive integer exponents.

Unit/Topic/Lesson
UNIT FOUR
RATIONAL EXPRESSIONS

1. Simplification of Rational Expressions
2. Multiplication of Rational Expressions
3. Division of Rational Expressions

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To simplify rational expressions.
2. To multiply and divide rational expressions.

Essential Question

Why is it important to state the restricted values before simplifying a rational expression?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter One lessons
2. Chapter One Practice Worksheets
3. Chapter One Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 7

Performance Standards

The students will:
10.P.4 Demonstrate facility in symbolic manipulation of polynomial and rational expressions by rearranging and collecting terms; factoring (e.g., $a^2 – b^2 = (a + b)(a – b)$, $x^2 + 10x + 21 = (x + 3)(x + 7)$, $5x^4 + 10x^3 – 5x^2 = 5x^2 (x^2 + 2x – 1)$); identifying and canceling common factors in rational expressions; and applying the properties of positive integer exponents.

Unit/Topic/Lesson
UNIT FOUR
RATIONAL EXPRESSIONS

1. Finding the Least Common Denominator
2. Addition and Subtraction of Rational Expressions

Mission and Expectations
1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives
1. To be able to determine the least common denominator of a rational expression.
2. To add or subtract rational expressions and simplify the results.

Essential Question
How do you know when a rational expression can be simplified?

Teacher Resources
Merrill Integrated Math 1991

1. Chapter One lessons
2. Chapter One Practice Worksheets
3. Chapter One Pre-Made Assessments

Media Resources
1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities
Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 8

Performance Standards

The students will:
10.P.4 Demonstrate facility in symbolic manipulation of polynomial and rational expressions by rearranging and collecting terms; factoring (e.g., $a^2 – b^2 = (a + b)(a – b)$, $x^2 + 10x + 21 = (x + 3)(x + 7)$, $5x^4 + 10x^3 – 5x^2 = 5x^2 (x^2 + 2x – 1)$); identifying and canceling common factors in rational expressions; and applying the properties of positive integer exponents.

Unit/Topic/Lesson
UNIT FOUR
RATIONAL EXPRESSIONS

1. Simplification of Complex Fractions
2. Solving Equations with Fractions and Rational Expressions

Mission and Expectations
1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives
1. To simplify complex fractions.
2. To solve equations involving fractions by multiplying each term by the common denominator.

Essential Question
Why is it necessary to check the answers when you solve by multiplying both sides of an equation by the LCD?

Teacher Resources
Merrill Integrated Math 1991

1. Chapter One lessons
2. Chapter One Practice Worksheets
3. Chapter One Pre-Made Assessments

Media Resources
1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities
Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Rational Expressions.

Completion date:

Completed by:

Comments:

Week 9

Performance Standards

The students will:

10.N.1 Identify and use the properties of operations on real numbers, including the associative, commutative, and distributive properties; the existence of the identity and inverse elements for addition and multiplication; the existence of n^{th} roots of positive real numbers for any positive integer n; and the inverse relationship between taking the n^{th} root of and the n^{th} power of a positive real number.

Unit/Topic/Lesson
UNIT FIVE
RADICALS AND SQUARE ROOTS

1. Definition of Square and *n*th Roots
2. Simplification and Approximation of Square Roots
3. Multiplication and Division Properties of Square Roots

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To identify the principle roots of a real number.
2. To be able to simplify and approximate square roots and other radical values.
3. To multiply and divide square roots.
4.

Essential Question

How do you decide that a radical expression is in simplest form?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Two lessons
2. Chapter Two Practice Worksheets
3. Chapter Two Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 10

Performance Standards

The students will:

10.N.1 Identify and use the properties of operations on real numbers, including the associative, commutative, and distributive properties; the existence of the identity and inverse elements for addition and multiplication; the existence of n^{th} roots of positive real numbers for any positive integer n; and the inverse relationship between taking the n^{th} root of and the n^{th} power of a positive real number.

Unit/Topic/Lesson
UNIT FIVE
RADICALS AND SQUARE ROOTS

1. Multiplication and Division Properties of Radicals
2. Simplification of Radical Expressions

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To multiply and divide radical expressions.
2. To simplify radical expressions.

Essential Question

How do you rationalize the denominator of a rational expression that contains radicals?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Two lessons
2. Chapter Two Practice Worksheets
3. Chapter Two Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 11

Performance Standards

The students will:

10.N.1 Identify and use the properties of operations on real numbers, including the associative, commutative, and distributive properties; the existence of the identity and inverse elements for addition and multiplication; the existence of n^{th} roots of positive real numbers for any positive integer n; and the inverse relationship between taking the n^{th} root of and the n^{th} power of a positive real number.

Unit/Topic/Lesson
UNIT FIVE
RADICALS AND SQUARE ROOTS

1. Operations With Radicals
2. Solving Equations With Radicals

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To add, subtract, multiply, and divide radicals.
2. To simplify radical expression after performed various operations.
3. To solve a variety of equations that contains radicals.

Essential Question

Why is it necessary to check the solutions to equations that involve radicals?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Two lessons
2. Chapter Two Practice Worksheets
3. Chapter Two Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Radicals and Square Roots.

Completion date:

Completed by:

Comments:

Week 12

Performance Standards

The students will:

12.N.1 Define complex numbers (e.g., a + b*i*) and operations on them, in particular, addition, subtraction, multiplication, and division. Relate the system of complex numbers to the systems of real and rational numbers.

Unit/Topic/Lesson
UNIT SIX
IMAGINARY AND COMPLEX NUMBERS

1. Pure Imaginary Numbers
2. Imaginary Numbers
3. the Powers of *i*

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To simplify expressions that contains imaginary numbers.
2. To determine the cyclic powers of *i*.
3. To perform operations with pure imaginary numbers.

Essential Question

How are the powers of *i* derived and how are they cyclic?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Two lessons
2. Chapter Two Practice Worksheets
3. Chapter Two Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 13

Performance Standards

The students will:
12.N.1 Define complex numbers (e.g., a + b*i*) and operations on them, in particular, addition, subtraction, multiplication, and division. Relate the system of complex numbers to the systems of real and rational numbers.

Unit/Topic/Lesson
UNIT SIX
IMAGINARY AND COMPLEX NUMBERS

1. Operations with Imaginary Numbers
2. Complex Numbers
3. Operations with Complex Numbers

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To perform operations with imaginary numbers.
2. To simplify complex numbers.
3. To add and subtract complex numbers.

Essential Question

Why is it that when simplifying imaginary and complex numbers that the highest power of *i* is one?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Two lessons
2. Chapter Two Practice Worksheets
3. Chapter Two Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 14

Performance Standards

The students will:
12.N.1 Define complex numbers (e.g., a + b*i*) and operations on them, in particular, addition, subtraction, multiplication, and division. Relate the system of complex numbers to the systems of real and rational numbers.

Unit/Topic/Lesson
UNIT SIX
IMAGINARY AND COMPLEX NUMBERS

1. Operations with Complex Numbers
2. Conjugates and Division of Complex Numbers
3. Complex Roots

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To multiply and divide complex numbers.
2. To write the conjugates of complex numbers.
3. To find the additive and multiplicative inverses of complex numbers.
4. To solve quadratic equations with complex roots.

Essential Question

Why do you need to multiply a denominator that has a complex number by its conjugate?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Two lessons
2. Chapter Two Practice Worksheets
3. Chapter Two Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Imaginary and Complex Numbers.

Completion date:

Completed by:

Comments:

Week 15

Performance Standards

The students will:

10.P.1 Describe, complete, extend, analyze, generalize, and create a wide variety of patterns, including iterative, recursive (e.g., Fibonnacci Numbers), linear, quadratic, and exponential functional relationships.

Unit/Topic/Lesson
UNIT SEVEN
RELATIONS AND FUNCTIONS

1. Definition of Relations
2. Domain and Range
3. Definition of Functions

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To identify the domain and range of a relation.
2. To graph a relation.
3. To identify relations as functions.

Essential Question

How do you determine the domain and range of a relation?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Three lessons
2. Chapter Three Practice Worksheets
3. Chapter Three Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 16

Performance Standards

The students will:

10.P.1 Describe, complete, extend, analyze, generalize, and create a wide variety of patterns, including iterative, recursive (e.g., Fibonnacci Numbers), linear, quadratic, and exponential functional relationships.

12.P.6 Given algebraic, numeric and/or graphical representations, recognize functions as polynomial, rational, logarithmic, exponential, or trigonometric.

Unit/Topic/Lesson
UNIT SEVEN
RELATIONS AND FUNCTIONS

1. Functional Notation
2. Evaluation of Functions
3. Recognizing Types of Functions (Constant, Direct Variation, Quadratic, Exponential, Step, Absolute Value, and Greatest Integer)

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To name functions and use functional notation.
2. To evaluate functions.
3. To recognize, identify, and apply various types of functions.

Essential Question

By inspection, how do you determine the type of function that a given equation represents in function notation?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Three lessons
2. Chapter Three Practice Worksheets
3. Chapter Three Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 17

Performance Standards

The students will:

10.P.1 Describe, complete, extend, analyze, generalize, and create a wide variety of patterns, including iterative, recursive (e.g., Fibonnacci Numbers), linear, quadratic, and exponential functional relationships.

10.P.7 Solve everyday problems that can be modeled using linear, reciprocal, quadratic, or exponential functions. Apply appropriate tabular, graphical, or symbolic methods to the solution. Include compound interest, and direct and inverse variation problems. Use technology when appropriate.

12.P.5 Perform operations on functions, including composition. Find inverses of functions.

Unit/Topic/Lesson
UNIT SEVEN
RELATIONS AND FUNCTIONS

1. Inverse Functions
2. Composition of Functions

Mission and Expectations

1. Critical Thinking Skills *2. Problem Solving Skills* *3. Test Taking Skills*

Objectives

1. To determine the inverse of a function.
2. To determine whether a function's inverse is also a function.
3. To work with and apply the composition of functions.

Essential Question

With a function written in functional notation how do you find the inverse of that function?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Three lessons
2. Chapter Three Practice Worksheets
3. Chapter Three Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Relations and Functions.

Completion date:

Completed by:

Comments:

Week 18

Performance Standards

The students will:

12.G.4 Relate geometric and algebraic representations of lines, simple curves, and conic sections.

Unit/Topic/Lesson
UNIT EIGHT
OVERVIEW OF CONIC SECTIONS

1. Parabolas
2. Circles
3. Ellipses
4. Hyperbolas

Mission and Expectations

1. Critical Thinking Skills *2. Problem Solving Skills* *3. Test Taking Skills*

Objectives

1. To identify the equations of conic sections as parabolas, ellipses, circles, or hyperbolas.
2. To graph parabolas, circles, ellipses, and hyperbolas.

Essential Question

How are hyperbolas similar and different to ellipses?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Three lessons
2. Chapter Three Practice Worksheets
3. Chapter Three Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Conic Sections.

Completion date:

Completed by:

Comments:

Week 19

Performance Standards

The students will:

10.G.9 Draw the results, and interpret transformations on figures in the coordinate plane, e.g., translations, reflections, rotations, scale factors, and the results of successive transformations. Apply transformations to the solutions of problems.

Unit/Topic/Lesson
UNIT NINE
TRANSFORMATIONAL GEOMETRY

1. Line Reflections
2. Line Reflections in the Coordinate Plane
3. Translations
4. Translations in the Coordinate Plane

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To identify line reflection and translations.
2. To draw/construct reflections and translations.
3. To find images for reflections and translations in the coordinate plane.

Essential Question

How do you determine the vector associated with a translation, given the pre-image and image?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Four lessons
2. Chapter Four Practice Worksheets
3. Chapter Four Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 20

Performance Standards

The students will:

10.G.9 Draw the results, and interpret transformations on figures in the coordinate plane, e.g., translations, reflections, rotations, scale factors, and the results of successive transformations. Apply transformations to the solutions of problems.

Unit/Topic/Lesson
UNIT NINE
TRANSFORMATIONAL GEOMETRY

1. Rotations
2. Rotations in the Coordinate Plane
3. Linear and Rotational Symmetry

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To identify rotations.
2. To draw/construct rotations
3. To find images for rotations in the coordinate plane.
4. To determine linear and rotational symmetry of two dimensional figures.

Essential Question

How do you determine the angle of rotational symmetry for a given figure?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Four lessons
2. Chapter Four Practice Worksheets
3. Chapter Four Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 21

Performance Standards

The students will:

10.G.9 Draw the results, and interpret transformations on figures in the coordinate plane, e.g., translations, reflections, rotations, scale factors, and the results of successive transformations. Apply transformations to the solutions of problems.

Unit/Topic/Lesson

UNIT NINE

TRANSFORMATIONAL GEOMETRY

1. Composition of Transformations
2. Dilations (Enlargements and Reductions)

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To work with the compositions of multiple transformations.
2. To identify dilations.
3. To draw/construct dilations.
4. To find images for dilations in the coordinate plane.

Essential Question

When performing a composition of transformation, why is the order in which they are performed important?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Four lessons
2. Chapter Four Practice Worksheets
3. Chapter Four Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Transformational Geometry.

Completion date:

Completed by:

Comments:

Week 22

Performance Standards

The students will:

10.G.5 Solve simple triangle problems using the triangle angle sum property and/or the Pythagorean theorem.

Unit/Topic/Lesson

UNIT TEN

TRIANGLE CONCEPTS

1. Classification of Triangles
2. Right Triangles
3. The Pythagorean Theorem

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To classify triangles by either angle measure or side lengths.
2. To determine whether a triangle is a right triangle.
3. To find missing side lengths of a right triangle using the Pythagorean Theorem.

Essential Question

How do you determine the classification of triangle using the concept of Pythagorean inequalities?

Teacher Resources

Merrill Integrated Math 1991

1. Teacher created lessons.
2. Teacher created worksheets and exercises.
3. Teacher created assessments.

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 23

Performance Standards

The students will:

10.G.4 Apply congruence and similarity correspondences (e.g., ΔABC ≅ ΔXYZ) and properties of the figures to find missing parts of geometric figures, and provide logical justification.

10.G.6 Use the properties of special triangles (e.g., isosceles, equilateral, 30º–60º–90º, 45º–45º–90º) to solve problems.

Unit/Topic/Lesson
UNIT TEN
TRIANGLE CONCEPTS

1. Special Right Triangles
2. Congruent Triangle Theorems

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To find missing side measures of special right triangles.
2. To determine whether two triangles are congruent using various theorems for congruence.

Essential Question

What are the "shortcuts" to prove that two triangles are congruent?

Teacher Resources

Merrill Integrated Math 1991

1. Teacher created lessons.
2. Teacher created worksheets and exercises.
3. Teacher created assessments.

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Triangles.

Completion date:

Completed by:

Comments:

Week 24

Performance Standards

The students will:

10.G.3 Recognize and solve problems involving angles formed by transversals of coplanar lines. Identify and determine the measure of central and inscribed angles and their associated minor and major arcs. Recognize and solve problems associated with radii, chords, and arcs within or on the same circle.

10.G.5 Solve simple triangle problems using the triangle angle sum property and/or the Pythagorean theorem.

Unit/Topic/Lesson
UNIT ELEVEN
FINDING ANGLE MEASUREMENTS

1. Angles Formed by Parallel Lines Being Cut by a Transversal.
2. Triangle Angle Sum
3. Determining Missing Angle Measure

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To work with and find measures of angles formed when two parallel lines were cut by a transversal.
2. To find the missing angle measures in a triangle.
3. To determine the angle measure of various angles.

Essential Question

How do you determine the measures of all the angles created by two parallel lines cut by a transversal, given only one angle's measure?

Teacher Resources

1. Teacher created lessons.
2. Teacher created worksheets and exercises.
3. Teacher created assessments.

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Finding Angle Measurements.

Completion date:

Completed by:

Comments:

Week 25

Performance Standards

The students will:

10.G.3 Recognize and solve problems involving angles formed by transversals of coplanar lines. Identify and determine the measure of central and inscribed angles and their associated minor and major arcs. Recognize and solve problems associated with radii, chords, and arcs within or on the same circle.

Unit/Topic/Lesson
UNIT TWELVE
CIRCLE CONCEPTS

1. Parts of a Circle
2. Central Angles
3. Arcs and Angles

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To define and work with basic terms and concepts associated with a circle.
2. To find both central angle measures and their intercepted arc measures.
3. To determine various angle and arc measurements.

Essential Question

How to use find the measures of arcs in a circle by using given angle measures that related to the circle?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Six lessons
2. Chapter Six Practice Worksheets
3. Chapter Six Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 26

Performance Standards

The students will:

10.G.3 Recognize and solve problems involving angles formed by transversals of coplanar lines. Identify and determine the measure of central and inscribed angles and their associated minor and major arcs. Recognize and solve problems associated with radii, chords, and arcs within or on the same circle.

10.M.1 Calculate perimeter, circumference, and area of common geometric figures such as parallelograms, trapezoids, circles, and triangles.

Unit/Topic/Lesson
UNIT TWELVE
CIRCLE CONCEPTS

1. Area of Circles
2. Circumference of Circles
3. The Concept of π
4. Area of Sectors
5. Arc Length of Sectors

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To find the areas of circles and sectors.
2. To find the circumferences of circles and the arc lengths of sectors.
3. To define and use the formal definition of π.

Essential Question

How does the concept of pie chart related to the concept of sector area?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Six lessons
2. Chapter Six Practice Worksheets
3. Chapter Six Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 27

Performance Standards

The students will:
10.G.3 Recognize and solve problems involving angles formed by transversals of coplanar lines. Identify and determine the measure of central and inscribed angles and their associated minor and major arcs. Recognize and solve problems associated with radii, chords, and arcs within or on the same circle.

Unit/Topic/Lesson
UNIT TWELVE
CIRCLE CONCEPTS

1. Circles: Concepts involving Tangents
2. Circles: Concepts involving Chords
3. Circles: Concepts involving Secants

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To apply theorems and properties regarding tangent line relationships.
2. To apply theorems and properties regarding chords in a circle.
3. To find the measures of angles formed by chords, tangents, and secants.

Essential Question

How does it matter where the lines that intersect a circle, intersect each other, in relation to the circle?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Six lessons
2. Chapter Six Practice Worksheets
3. Chapter Six Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 28

Performance Standards

The students will:
10.G.3 Recognize and solve problems involving angles formed by transversals of coplanar lines. Identify and determine the measure of central and inscribed angles and their associated minor and major arcs. Recognize and solve problems associated with radii, chords, and arcs within or on the same circle.

Unit/Topic/Lesson
UNIT TWELVE
CIRCLE CONCEPTS

1. Inscribed Angles
2. Theorems Involving Angles and Circles

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To apply theorems regarding inscribed angles.
2. To apply theorems regarding the intersection of chords of a circle.

Essential Question

How does it matter where the lines that intersect a circle, intersect each other, in relation to the circle?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Six lessons
2. Chapter Six Practice Worksheets
3. Chapter Six Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Circles.

Completion date:

Completed by:

Comments:

Week 29

Performance Standards

The students will:

10.P.4 Demonstrate facility in symbolic manipulation of polynomial and rational expressions by rearranging and collecting terms; factoring (e.g., $a^2 – b^2 = (a + b)(a – b)$, $x^2 + 10x + 21 = (x + 3)(x + 7)$, $5x^4 + 10x^3 – 5x^2 = 5x^2 (x^2 + 2x – 1)$); identifying and canceling common factors in rational expressions; and applying the properties of positive integer exponents.

10.P.7 Solve everyday problems that can be modeled using linear, reciprocal, quadratic, or exponential functions. Apply appropriate tabular, graphical, or symbolic methods to the solution. Include compound interest, and direct and inverse variation problems. Use technology when appropriate.

Unit/Topic/Lesson
UNIT THIRTEEN
EXPONENTIAL AND LOGARITHMIC FUNCTIONS

1. Rational Exponents
2. Laws for Rational Exponents

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To define rational exponents.
2. To evaluate expressions using the laws of exponents.
3. To use the laws of rational exponents and their relationship to radical expressions.

Essential Question

How do you convert between expressions with rational exponents and radical expressions?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Five lessons
2. Chapter Five Practice Worksheets
3. Chapter Five Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 30

Performance Standards

The students will:

10.P.7 Solve everyday problems that can be modeled using linear, reciprocal, quadratic, or exponential functions. Apply appropriate tabular, graphical, or symbolic methods to the solution. Include compound interest, and direct and inverse variation problems. Use technology when appropriate.

12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions.

12.P.6 Given algebraic, numeric and/or graphical representations, recognize functions as polynomial, rational, logarithmic, exponential, or trigonometric.

Unit/Topic/Lesson
UNIT THIRTEEN
EXPONENTIAL AND LOGARITHMIC FUNCTIONS

1. Exponential Functions
2. Equations Involving Various Exponential Functions

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To define and graph exponential functions.
2. To solve a variety of equations containing rational exponents.

Essential Question

How do you use the inverse relationship between exponential and logarithmic functions to solve equations?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Five lessons
2. Chapter Five Practice Worksheets
3. Chapter Five Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 31

Performance Standards

The students will:

12.P.4 Demonstrate an understanding of the trigonometric, exponential, and logarithmic functions.

12.P.6 Given algebraic, numeric and/or graphical representations, recognize functions as polynomial, rational, logarithmic, exponential, or trigonometric.

Unit/Topic/Lesson
UNIT THIRTEEN
EXPONENTIAL AND LOGARITHMIC FUNCTIONS

1. Logarithmic Functions
2. Laws of Logarithms
3. Common Logarithms

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To investigate the relationship between exponential and logarithmic functions.
2. To use and simplify expression involving logarithms.
3. To use the laws of logarithms to solve equations.
4. To introduce the concept of common logarithms using a graphing calculator.

Essential Question

How do you convert between exponential and logarithmic form?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Five lessons
2. Chapter Five Practice Worksheets
3. Chapter Five Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Exponential and Logarithms.

Completion date:

Completed by:

Comments:

Week 32

Performance Standards

The students will:

10.D.1 Select, create, and interpret an appropriate graphical representation (e.g., scatterplot, table, stem-and-leaf plots, box-and-whisker plots, circle graph, line graph, and line plot) for a set of data and use appropriate statistics (e.g., mean, median, range, and mode) to communicate information about the data. Use these notions to compare different sets of data.

12.D.6 Use combinatorics (e.g., "fundamental counting principle," permutations, and combinations) to solve problems, in particular, to compute probabilities of compound events. Use technology as appropriate.

Unit/Topic/Lesson
UNIT FOURTEEN
INTRODUCTION TO PROBABILITY CONCEPTS

1. Basic Rules of Probability
2. The Counting Principle
3. Word Problems involving Basic Probability

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To apply the basic principles of probability.
2. To use the counting principle to work with the probability of multiple events.
3. To solve real world problems that involves the concept of probability.

Essential Question

How do you use the Fundamental Counting Principle to determine the probability of a given outcome?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Eleven lessons
2. Chapter Eleven Practice Worksheets
3. Chapter Eleven Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 33

Performance Standards

The students will:

12.D.6 Use combinatorics (e.g., "fundamental counting principle," permutations, and combinations) to solve problems, in particular, to compute probabilities of compound events. Use technology as appropriate.

Unit/Topic/Lesson
UNIT FOURTEEN
INTRODUCTION TO PROBABILITY CONCEPTS

1. Permutations
2. Combinations

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To apply the rules for counting a number of permutations.
2. To apply the rules for counting a number of combinations.
3. To determine whether of given situation should be represented by a permutation or a combination.

Essential Question

How do you determine whether a given situation involves a combination or a permutation?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Eleven lessons
2. Chapter Eleven Practice Worksheets
3. Chapter Eleven Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 34

Performance Standards

The students will:
10.D.1 Select, create, and interpret an appropriate graphical representation (e.g., scatterplot, table, stem-and-leaf plots, box-and-whisker plots, circle graph, line graph, and line plot) for a set of data and use appropriate statistics (e.g., mean, median, range, and mode) to communicate information about the data. Use these notions to compare different sets of data.
12.P.3 Demonstrate an understanding of the binomial theorem and use it in the solution of problems.

Unit/Topic/Lesson
UNIT FOURTEEN
INTRODUCTION TO PROBABILITY CONCEPTS

1. The Binomial Theorem
2. Measures of Central Tendency

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To apply combinatorial notation to develop the Binomial Theorem.
2. To expend and simplify binomial expansion using the Binomial Theorem.
3. To calculate various measures of central tendency.
4. To determine which measure of central tendency should be used for a given situation.

Essential Question

How do you determine which measure of central tendency is best used to represent a given set of data?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Eleven lessons
2. Chapter Eleven Practice Worksheets
3. Chapter Eleven Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Probability.

Completion date:

Completed by:

Comments:

Week 35

Performance Standards

The students will:

10.P.1 Describe, complete, extend, analyze, generalize, and create a wide variety of patterns, including iterative, recursive (e.g., Fibonnacci Numbers), linear, quadratic, and exponential functional relationships.
12.P.2 Identify arithmetic and geometric sequences and finite arithmetic and geometric series. Use the properties of such sequences and series to solve problems, including finding the general term and sum recursively and explicitly.

Unit/Topic/Lesson
UNIT FIFTEEN
SEQUENCES AND SERIES

1. Introduction to Sequences
2. Infinite Sequences
3. Arithmetic Sequences
4. Geometric Sequences

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To work with and find various sequential patterns.
2. To use sequence notation to describe a pattern.
3. To identify an arithmetic sequence and find the general term of that sequence.
4. To identify a geometric sequence and find the common ratio and a missing term.

Essential Question

How do you find the nth term of an arithmetic sequence without finding all of the terms prior to that term?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Thirteen lessons
2. Chapter Thirteen Practice Worksheets
3. Chapter Thirteen Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Completion date:

Completed by:

Comments:

Week 36

Performance Standards

The students will:

12.P.2 Identify arithmetic and geometric sequences and finite arithmetic and geometric series. Use the properties of such sequences and series to solve problems, including finding the general term and sum recursively and explicitly.

Unit/Topic/Lesson
UNIT FIFTEEN
SEQUENCES AND SERIES

1. Introduction to Series
2. Infinite Series
3. Arithmetic Series
4. Geometric Series

Mission and Expectations

1. Critical Thinking Skills 2. Problem Solving Skills 3. Test Taking Skills

Objectives

1. To find the sum of a given series and to use summation notation.
2. To find the sum of a given infinite series.
3. To find the sum of the terms of an arithmetic series.
4. To find the sum of the terms of a geometric series.

Essential Question

When can you find the sum of an infinite series?

Teacher Resources

Merrill Integrated Math 1991

1. Chapter Thirteen lessons
2. Chapter Thirteen Practice Worksheets
3. Chapter Thirteen Pre-Made Assessments

Media Resources

1. Teacher-Made PowerPoint Presentations
2. Test ExamPro Generator
3. Electronic Worksheets in TeacherShared Folder
4. Teacher-Made Web-Based Assessments

Evaluation/Activities

Homework: To be given daily on each introduced topic
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Test: On the concepts of Sequences and Series.

Completion date:

Completed by:

Comments: