Michigan Curriculum Standards

Mathematics

Grade 6

STRAND / STANDARD CATEGORY	MI.N.	Number and Operations
STANDARD	N.1.	Multiply and divide fractions
GRADE LEVEL EXPECTATION	N.MR.06.01.	Understand division of fractions as the inverse of multiplication, e.g., if 4/5 / 2/3 = __, then 2/3 x __ = 4/5, so __ = 4/5 x 3/2 = 12/10. Fraction Problems - Multiplying and Dividing (Easiteach) Fraction Problems - Multiplying and Dividing Task Halving Again and Again - Finding Halves of Fractions (Easiteach) Random Decimals or Fractions - Doubling and Halving Decimals or Fractions Software Up and Down - Dividing by Fractions (Easiteach) Up and Down - Multiply and Divide Decimals by 10, 100, 1 000 (Easiteach)
GRADE LEVEL EXPECTATION	N.FL.06.02.	Given an applied situation involving dividing fractions, write a mathematical statement to represent the situation. Add them up - Addition of Fractions (Easiteach) Common Multiples and LCM - Find Least Common Multiple (Easiteach) Explaining Your Calculation Strategy Task Fraction Problems - Multiplying and Dividing (Easiteach) Fraction Problems - Multiplying and Dividing Task How Much? - Fractions of Quantities (Task) Judging Sensible Answers - Word Problems in Number (Easiteach) Judging Sensible Answers - Word Problems in Number Task Judging Whether an Answer is Correct - Estimating Answers (Easiteach) Use the Rules - Adding and Subtracting Fractions Task
GRADE LEVEL EXPECTATION	N.MR.06.03.	Solve for the unknown in equations such as 1/4 / __ = 1, 3/4 / __ = 1/4, and 1/2 = 1 x __. Fraction Problems - Multiplying and Dividing (Easiteach) Fraction Problems - Multiplying and Dividing Task

		Halving Again and Again - Finding Halves of Fractions (Easiteach) Random Decimals or Fractions - Doubling and Halving Decimals or Fractions Software Up and Down - Dividing by Fractions (Easiteach) Up and Down - Multiply and Divide Decimals by 10, 100, 1 000 (Easiteach)
GRADE LEVEL EXPECTATION	N.FL.06.04.	Multiply and divide any two fractions, including mixed numbers, fluently. Assessment - Fractions, Decimals, Percentages 1 Calculating Simple Fractions of Quantities (Easiteach) Colorful Doubles - Finding Doubles of Fractions (Easiteach) Colorful Halves - Finding Halves of Fractions (Easiteach) Coloring Shapes - Finding Doubles of Fractions (Easiteach) Double Trouble - Doubling Fractions (Easiteach) Finding Simple Fractions of Quantities (Easiteach) Fraction Problems - Multiplying and Dividing (Easiteach) Fraction Problems - Multiplying and Dividing Task Fraction Word Problems Fraction Word Problems (Easiteach) Halving Again and Again - Finding Halves of Fractions (Easiteach) How Much? - Fractions of Quantities (Task) Rabbit Doubles - Finding Doubles and Halves of Fractions (Easiteach) Random Decimals or Fractions - Doubling and Halving Decimals or Fractions Software Sink the Sub (Pause Edition) - Find fractions of quantities Software Sink the Sub (Student Edition) - Find Fractions of Quantities Software Sink the Sub - Fractions Challenge Software Top Card - Percentages and Fractions of Amounts (Easiteach) Up and Down - Dividing by Fractions (Easiteach) Up and Down - Multiply and Divide Decimals by 10, 100, 1 000 (Easiteach)
STRAND / STANDARD CATEGORY	MI.N.	Number and Operations
STANDARD	N.2.	Represent rational numbers as fractions or decimals
GRADE LEVEL EXPECTATION	N.ME.06.05.	Order rational numbers and place them on the number line.

EXPECTATION		All Mixed Up - Fractions, Mixed Numbers, Decimals and Percents (Easiteach) Are You Proper? - Converting Improper Fractions to Mixed Numbers Assessment - Fractions, Decimals and Percentages 2 Assessment - Place Value and Negative Numbers Better Buys - Making Comparisons (Easiteach) Better Buys - Making Comparisons Task Compare and Order Fractions (Easiteach) Converting Fractions to Decimals and Vice Versa Decimal Dilemmas - Ordering Decimal Numbers (Easiteach) Decimal Dilemmas - Ordering Decimal Numbers Task Decimals, Fractions and Percentages - Converting Fractions, Decimals, Percentages Task Decimals, Fractions and Percentages Homework Fraction Cards - Ordering Fractions (Easiteach) Jungle Grub (Pause Edition) - Ordering Positive and Negative Numbers Software Jungle Grub (Student Edition) - Fractions, Decimals And Percentages Software Large and Small Numbers in Expanded Notation (Easiteach) Mix and Match - Working with Mixed Numbers (Easiteach) Number Invaders - Fractions and Decimals Student Software Ordering Decimals (Easiteach) Ordering Fractions and Decimals Homework Ordering Negative and Positive Numbers Software Random Fractions - Ordering Fractions Software Random Numbers - Rounding Whole Numbers and Decimals Software Student Notes - Place Value, Positive and Negative Numbers and Subtraction Methods We're all equal - Exploring Equivalent Fractions (Easiteach) What's My Picture? - Fraction, Decimal and Percentage Equivalents (Easiteach) Which is Larger? - Ordering Fractions (Easiteach)
GRADE LEVEL EXPECTATION	N.ME.06.06.	Represent rational numbers as fractions or terminating decimals when possible, and translate between these representations. All Mixed Up - Fractions, Mixed Numbers, Decimals and Percents (Easiteach) Assessment - Equivalent Fractions, Ratio and Proportion Assessment - Fractions, Decimals and Percentages 2

		Assessment - Fractions, Decimals, Percentages 1 AtTENtion - Converting Fractions to Decimals (Easiteach) Changing Fractions to Decimals - Converting Simple Fractions to Decimals Task Changing Repeating Decimals to Fractions - Convert Between Fractions, Decimals, and Percentages Task Chocolate Factory - Convert Between Fractions, Decimals and Percentages Software Convert between Fractions, Decimals and Percentages (Easiteach) Converting Fractions to Decimals and Vice Versa Converting Simple Fractions to Decimals (Easiteach) Converting Simple Fractions to Decimals Task Decimals, Fractions and Percentages - Converting Fractions, Decimals, Percentages Task Decimals, Fractions and Percentages Homework Fractions as Division (Easiteach) Fractions to Decimals - Convert Between Fractions, Decimals, and Percentages (Easiteach) Loop Cards - Convert Between Fractions, Decimals and Percentages Software Matching Cards (Memory) - Convert Between Fractions and Decimals Software Per Cent Change - Knowing Percentage and Decimal Equivalents (Easiteach) Percentage Match - Calculating Percentages and Converting Between Fractions, Decimals and Percentages (Easiteach) Researching Fractions Homework Space Racer - Converting Fractions, Decimals, Percentages Software
GRADE LEVEL EXPECTATION	N.ME.06.07.	Understand that a fraction or a negative fraction is a quotient of two integers, e.g., - 8/3 is -8 divided by 3. Add them up - Addition of Fractions (Easiteach) All Mixed Up - Fractions, Mixed Numbers, Decimals and Percents (Easiteach) AtTENtion - Converting Fractions to Decimals (Easiteach) Calculating Simple Fractions of Quantities (Easiteach) Changing Fractions to Decimals - Converting Simple Fractions to Decimals Task Changing Repeating Decimals to Fractions - Convert Between Fractions, Decimals, and Percentages Task Chocolate Factory - Convert Between Fractions, Decimals and Percentages Software Common Multiples and LCM - Find Least Common Multiple (Easiteach) Compare and Order Fractions (Easiteach) Convert between Fractions, Decimals and Percentages (Easiteach) Converting Decimals and Fractions to Percentages Converting Fractions to Decimals and Vice Versa

		Converting Simple Fractions to Decimals (Easiteach) Converting Simple Fractions to Decimals Task Decimals, Fractions and Percentages - Converting Fractions, Decimals, Percentages Task Decimals, Fractions and Percentages Homework Equivalent Fractions 1 - Finding a Half Task Equivalent Fractions 2 - Converting Fractions, Decimals, Percentages Task Equivalent Fractions Loop Cards - Find Equivalent Fractions Software Equivalent Fractions Using Number Lines (Easiteach) Finding Equivalent Fractions by Dividing (Easiteach) Finding Equivalent Fractions by Multiplying (Easiteach) Finding Simple Fractions of Quantities (Easiteach) Fraction Cards - Ordering Fractions (Easiteach) Fractions as Division (Easiteach) Fractions to Decimals - Convert Between Fractions, Decimals, and Percentages (Easiteach) Funky Fractions - Equivalent Fractions Task Funky Fractions - Finding Equivalent Fractions (Easiteach) How Much? - Fractions of Quantities (Task) In Your Place! Place Value Game (Easiteach) Jungle Grub (Student Edition) - Fractions, Decimals And Percentages Software Large and Small Numbers in Expanded Notation (Easiteach) Matching Cards (Memory) - Convert Between Fractions and Decimals Software Matching Equivalent Fractions Memory Version Software Matching Equivalent Fractions Software Mental Methods - Convert between Fractions, Decimals and Percentages (Easiteach) Mix and Match - Working with Mixed Numbers (Easiteach) Number Invaders - Fractions and Decimals Student Software Ordering Fractions and Decimals Homework Rabbit Doubles - Finding Doubles and Halves of Fractions (Easiteach) Round Up - Rounding Numbers to a Given Accuracy Task Simplifying Equivalent Fractions - Equivalent Fractions (Easiteach) Simplifying Equivalent Fractions - Equivalent Fractions Task Sink the Sub (Pause Edition) - Find fractions of quantities Software Sink the Sub - Fractions Challenge Software Slalom Racer (Pause Edition) - Equivalent Fractions Software

		Slalom Racer (Student Edition) - Equivalent Fractions Software Space Racer - Converting Fractions, Decimals, Percentages Software Student Notes - Equivalent Fractions, Ratio and Proportion Take them Away - Subtraction of Fractions (Easiteach) Top Card - Percentages and Fractions of Amounts (Easiteach) Use the Rules - Adding and Subtracting Fractions Task We're all equal - Exploring Equivalent Fractions (Easiteach) Which is Larger? - Ordering Fractions (Easiteach)
STRAND / STANDARD CATEGORY	**MI.N.**	**Number and Operations**
STANDARD	**N.3.**	Add and subtract integers and rational numbers
GRADE LEVEL EXPECTATION	**N.MR.06.08.**	Understand integer subtraction as the inverse of integer addition. Understand integer division as the inverse of integer multiplication. Backwards and Forwards - Inverse Functions Task Check on Long Island - Checking Results using Inverse Operations Task Checking Division Using Inverse Operations (Easiteach) Checking Division Using Inverses Task Checking Percentage Calculations - Calculator Methods for Finding Percentages - (Excel) Checking Percentage Calculations Using Inverse Operations (Easiteach) Integers - Inverse Operations (Easiteach) Inverse Operations Worksheet (1) Make the Link - Understand that Algebraic Operations Follow the Same Order as Arithmetic Operations (Easiteach) Mental Calculation Strategies for Subtraction Using a Number Line (Easiteach) Missing Numbers - Addition, Subtraction, Multiplication and Division of Integers (Easiteach) Number Circuits - Multiplication and Division Facts (Easiteach) Numbers and Symbols - Solving Equations (Easiteach) Puzzling Pyramids - Constructing and Solving Equations (Easiteach) Puzzling Pyramids - Constructing and Solving Equations Task 1 Puzzling Pyramids - Constructing and Solving Equations Task 2 Student Notes - Equivalent Fractions, Ratio and Proportion Using Inverse Operations to Check Percentage Calculations Task

GRADE LEVEL EXPECTATION	N.FL.06.09.	Add and multiply integers between -10 and 10; subtract and divide integers using the related facts. Use the number line and chip models for a Adding 2-Digit Numbers - Mental Methods (Easiteach) Adding 2-Digit Numbers - Mental Methods Task Against The Clock - Integer Operations (Easiteach) Assessment - Primes, Factors, Multiples and Sequences Compare and Order Numbers (Easiteach) Compare and Order Numbers Task Expanding Parentheses - Multiplying a Single Term over a parenthesis (Easiteach) Expanding Parentheses - Multiplying a Single Term over a parenthesis Task Make a Match - Addition and Subtraction of Several Numbers Missing Numbers - Addition, Subtraction, Multiplication and Division of Integers (Easiteach) Name Challenge - Order of Operations Task Negative Number and Number Lines (Easiteach) Negative Number and Number Lines Task Negative Numbers - Adding and Subtracting Negative Numbers Software Number Grid - Using Mental Methods of Calculation (Easiteach) Number Grid - Using Mental Methods of Calculation Task Order of Operations (Easiteach) Order of Operations - All Four Operations (Easiteach) Order of Operations - Parentheses (Easiteach) Order of Operations - all Four Operations Task Order of Operations Task Random Addition and Subtraction of Positive and Negative Numbers Software Switch - Calculations Software Taking Away Negatives - Subtracting Negative Numbers (Easiteach) Temperature and Money - Adding and Subtracting Positive and Negative Numbers (Easiteach)
GRADE LEVEL EXPECTATION	N.FL.06.10.	Add, subtract, multiply and divide positive rational numbers fluently. Add them up - Addition of Fractions (Easiteach) Adding Decimal Numbers Using a Number Line (Easiteach) Adding Decimals Using a Number Line Task

Adding Pairs of Decimals Using Partitioning (Easiteach)
Adding and Doubling Decimals (Easiteach)
Adding and Subtracting 2-Digit Numbers - A Review of Mental Calculations
Calculating Simple Fractions of Quantities (Easiteach)
Calculator Speed Skills Using Parentheses - Using a calculator and parentheses (Easiteach)
Candy Conundrum - Finding Two Decimals with a Sum of 1 Software
Checking Division Using Inverse Operations (Easiteach)
Checking Division Using Inverses Task
Codes - Adding Decimals (Excel)
Colorful Doubles - Finding Doubles of Fractions (Easiteach)
Days Out - Multiplication of Decimals Task
Decimal Calculations in Your Head - Mental Calculations with Two 2-digit Numbers with 1 Decimal Place (Easiteach)
Decimal Calculations in Your Head Task - Mental Calculations with Two 2-digit Numbers with 1 Decimal Place
Decimal Division Using Calculators - Division of Decimals (Easiteach)
Decimal Division Using Calculators - Division of Decimals Task
Digit Challenge - Solve Problems Involving Number (Easiteach)
Digit Challenge - Solve Problems Involving Number Task
Dividing Decimals (Easiteach)
Dividing Decimals - Division of Decimals (Easiteach)
Dividing Decimals - Division of Decimals Task
Dividing Strategies - Dividing a Two-digit Decimal by a One Digit Number (Easiteach)
Dividing Using a Place Value Grid - Dividing Decimals by 10, 100, 1000
Division in Fun Towers Task - Division of Decimals (Easiteach)
Division in Roller Coaster Land - Division of Decimals Task
Don't Wait, Let's Estimate - Methods of Estimation (Easiteach)
Double Trouble - Doubling Fractions (Easiteach)
Easy Times Ahead - Multiplication Methods with Decimals Task
Egyptian Fractions - Expressing a Fraction as the Sum of Unit Fractions (Easiteach)
Finding Simple Fractions of Quantities (Easiteach)
Finding Two Decimals with a Sum of 0.1 (Easiteach)
Friendly Factors - Using Factors to Multiply and Divide Mentally (Easiteach)
Great Times - Multiplication using a Standard Column Method (Easiteach)
Great Times on Long Island - Multiplication Using a Standard Column Algorithm Task
Halves and Doubles in a Row - Finding Doubles and Halves of Decimals (Easiteach)

Halving Again and Again - Finding Halves of Fractions (Easiteach)
How Much? - Fractions of Quantities (Task)
Interpreting Money Calculations - Interpret Money Task
Investigating Multiplying Decimals (Excel)
Lets Share It! Division with Integers (Easiteach)
Mixed and Improper - Converting Between Improper Fractions and Mixed Numbers (Easiteach)
Multiplication and Division - Solving Problems Task
Multiplying A Two-digit Decimal by a One-digit Number (Easiteach)
Ordering Positive and Negative Decimals - Add and Subtract Decimal Numbers (Easiteach)
Ordering Positive and Negative Decimals - Add and Subtract Positive and Negative Decimals Task
Per Cent Change - Knowing Percentage and Decimal Equivalents (Easiteach)
Percentage Strategies - Calculating Percentages of Quantities (Easiteach)
Percentages of Amounts - Developing Strategies (Easiteach)
Price Changes - Percentage Increases and Decreases (Easiteach)
Rabbit Doubles - Finding Doubles and Halves of Fractions (Easiteach)
Random Decimals or Fractions - Doubling and Halving Decimals or Fractions Software
Random Numbers - Adding and Subtracting Pairs of Numbers 2 Software
Random Numbers - Adding and Subtracting Pairs of Numbers Software
Sale! - Calculate Simple Percentages of Quantities (Easiteach)
Sale! - Calculate Simple Percentages of Quantities Task
Seeing Double - Halving Decimals (Easiteach)
Shopkeeper's Method - Finding Two Decimals with a Sum of 1 (Easiteach)
Sink the Sub (Pause Edition) - Find fractions of quantities Software
Sink the Sub (Student Edition) - Find Fractions of Quantities Software
Sink the Sub - Fractions Challenge Software
Subtraction Methods - Helpsheet - Subtraction of Decimals
Subtraction Methods - Subtraction of Decimals Task
Subtraction Methods - Subtraction of Integers and Decimals (Easiteach)
Take Apart - Using Partitioning to Multiply a Decimal by a Whole Number (Easiteach)
Take them Away - Subtraction of Fractions (Easiteach)
Temperature and Money - Adding and Subtracting Positive and Negative Numbers (Easiteach)
The Fraction Game - Equivalent Fractions (Easiteach)
The Search For Egyptian Gold - Doubling and Halving Decimals Software
Use the Rules - Adding and Subtracting Fractions Task

		Visiting All Towns - Investigation Using Addition Algorithm Task What Does 47% Really Mean - Converting Fractions, Decimals, Percentages (Easiteach) Where Do The Parentheses Go - Using a Calculator and Parentheses Task Working with Percentages - Equivalent Calculations Task Written Division - 3-Digit by 1-Digit Number (Easiteach) Written Division - 3-Digit by 1-Digit Number Task Written Division - 3-Digit by 2-Digit Number (Easiteach) Written Division - 3-Digit by a 2-Digit Number Task Written Multiplication - Extended to Decimals (Easiteach) Written Multiplication - Extended to Decimals Task
STRAND / STANDARD CATEGORY	**MI.N.**	**Number and Operations**
STANDARD	**N.4.**	Find equivalent ratios
GRADE LEVEL EXPECTATION	**N.ME.06.11.**	Find equivalent ratios by scaling up or scaling down. Area and Volume of Similar Shapes Worksheet (1). Areas of Similar Shapes Worksheet (1). Areas of Similar Shapes Worksheet (2). Areas of Similar Shapes Worksheet (3). Areas of Similar Shapes Worksheet (4). Assessment - Equivalent Fractions, Ratio and Proportion Assessment - Fractions, Decimals and Percentages 2 Car Paint Ratio Challenge - Ratio Compares One Part to Another Software Check with Ratios - Using Ratios to Check for Similarity (GSP) Proportion and Ratio - Ratio Expressed as n:m (Easiteach) Proportion and Ratio - Ratio Expressed as n:m Task Ratio - Ratio expressed as n:m Task Ratio Using Heights and Maps - Ratio Expressed as n:m (Easiteach) Ratio and Proportion Teasers - Solve Problems Involving Ratio and Proportion Task Ratio and Proportion Using Towers - Ratio Expressed as n:m (Easiteach) Shares - Ratio and Proportion Task Solving Problems - Spaghetti Bolognese Task

		Stringing Beads - Ratio Expressed as n:m (Excel) Stringing Beads - Ratio Expressed as n:m Task Stringing Beads - Use Ratio (Easiteach) Student Notes - Equivalent Fractions, Ratio and Proportion Student Notes for Geometry - Transformation, Symmetry, Ratio and Proportion The Drawing Room - Making Scale Drawings Task Towers 1 - Ratio Expressed as n:m Task Towers 2 - Ratio Expressed as n:m Task
STRAND / STANDARD CATEGORY	**MI.N.**	**Number and Operations**
STANDARD	**N.5.**	Solve decimal, percentage and rational number problems
GRADE LEVEL EXPECTATION	**N.FL.06.12.**	Calculate part of a number given the percentage and the number. 5% Discount - Deriving a Formula 5% Discount Excel Spreadsheet Helpsheet A Fraction of the Cost - Calculating Percentages (Easiteach) Assessment - Equivalent Fractions, Ratio and Proportion Assessment - Fractions, Decimals, Percentages 1 Bungee Jump - Find Percentages of Quantities Software Calculating Percentages Using a Calculator - Calculator Methods for Finding Percentages Task Calculating Simple Percentages of Quantities (Easiteach) Checking Percentage Calculations - Calculator Methods for Finding Percentages - (Excel) Checking Percentage Calculations Using Inverse Operations (Easiteach) Convert between Fractions, Decimals and Percentages (Easiteach) Converting Decimals and Fractions to Percentages Cross Calculations - Solving Word Problems Using the Four Operations (Easiteach) Cross Calculations - Solving Word Problems Using the Four Operations Task Equation Problems - Construct and Solve Linear Equations (Easiteach) Equation Problems - Construct and Solve Linear Equations Task Per Cent Change - Knowing Percentage and Decimal Equivalents (Easiteach) Percentage Match - Calculating Percentages and Converting Between Fractions, Decimals and Percentages (Easiteach) Percentage Strategies - Calculating Percentages of Quantities (Easiteach)

		Percentages of Amounts - Developing Strategies (Easiteach) Price Changes - Percentage Increases and Decreases (Easiteach) Proportion and Ratio - Ratio Expressed as n:m (Easiteach) Proportion and Ratio - Ratio Expressed as n:m Task Sale! - Calculate Simple Percentages of Quantities (Easiteach) Sale! - Calculate Simple Percentages of Quantities Task Top Card - Percentages and Fractions of Amounts (Easiteach) Using Inverse Operations to Check Percentage Calculations Task What Does 47% Really Mean - Converting Fractions, Decimals, Percentages (Easiteach) Working with Percentages - Equivalent Calculations Task
GRADE LEVEL EXPECTATION	N.MR.06.13.	Solve contextual problems involving percentages such as sales taxes and tips. 5% Discount - Deriving a Formula 5% Discount Excel Spreadsheet Helpsheet A Fraction of the Cost - Calculating Percentages (Easiteach) Assessment - Fractions, Decimals, Percentages 1 Converting Decimals and Fractions to Percentages Equation Problems - Construct and Solve Linear Equations (Easiteach) Equation Problems - Construct and Solve Linear Equations Task Estimating Answers to Percentage Calculations (Easiteach) Explaining Your Calculation Strategy Task Find the Increase - Percentage Increases and Decreases (Easiteach) Lets Share It! Division with Integers (Easiteach) Price Changes - Percentage Increases and Decreases (Easiteach) Sale! - Calculate Simple Percentages of Quantities (Easiteach) Sale! - Calculate Simple Percentages of Quantities Task
GRADE LEVEL EXPECTATION	N.FL.06.14.	For applied situations, estimate the answers to calculations involving operations with rational numbers. Catapult Crazy (Pause Edition) A Review of Mental Calculations with Two 2-digit Numbers Software Catapult Crazy (Student Edition) A Review of Mental Calculations with Two 2-digit Numbers Software Checking Answers Using Estimation - Estimating Answers (Easiteach) Estimating Answers - Word Problems in Number (Easiteach)

		Estimating Answers - Word Problems in Number Task Estimating Answers to Percentage Calculations (Easiteach) Interpreting Money Calculations - Interpret Money Task Judging Whether an Answer is Correct - Estimating Answers (Easiteach) Round Journeys - Rounding Integers to the Nearest 10 and 100 (Easiteach) Round Journeys - Rounding Integers to the Nearest 10 and 100 Task
GRADE LEVEL EXPECTATION	N.FL.06.15.	Solve applied problems that use the four operations with appropriate decimal numbers. Assessment - Calculations, Order of Operations, Multiplication and Division and Measures Assessment - Conversions, Rounding and Order of Operations Assessment - Decimals Days Out - Multiplication of Decimals Task Dividing Decimals (Easiteach) Dividing Decimals - Division of Decimals (Easiteach) Dividing Decimals - Division of Decimals Task Division in Roller Coaster Land - Division of Decimals Task
STRAND / STANDARD CATEGORY	MI.N.	Number and Operations
STANDARD	N.6.	Use exponents
GRADE LEVEL EXPECTATION	N.ME.06.16.	Understand and use integer exponents, excluding powers of negative bases; express numbers in scientific notation. Chains Investigation - Generating Terms of a Sequence From a Rule Exponents - Recognizing Powers of 10 and more (Easiteach) Exponents - Recognizing Powers of 10 and more Task Flower Power - Writing Numbers with exponents Task Order of Operations - Exponents (Easiteach) Order of Operations - Exponents Task Recognizing Square and Cube Numbers (Easiteach) Roughly the Answer - Estimating Calculations to One Significant Figure (Easiteach) Sink the Sub (Pause Edition) - Squares and Square Root Software Sink the Sub (Student Edition) - Squares and Square Root Software

		Sink the Sub - Squares, Cubes And Roots Challenge Software Square Numbers and Square Roots (Easiteach) Squares in General - Investigating General Statements (Easiteach) The Greater Power - Exploring exponents Task
STRAND / STANDARD CATEGORY	**MI.N.**	**Number and Operations**
STANDARD	**N.7.**	Understand rational numbers and their location on the number line
GRADE LEVEL EXPECTATION	**N.ME.06.17.**	Locate negative rational numbers (including integers) on the number line; know that numbers and their negatives add to 0, and are on opposi Absolute Value (extension activity) Absolute beginners! (Easiteach) Absolute beginners! Task All Mixed Up - Fractions, Mixed Numbers, Decimals and Percents (Easiteach) Compare and Order Numbers (Easiteach) Compare and Order Numbers Task Mental Calculation Strategies for Subtraction Using a Number Line (Easiteach) Missing Numbers - Addition, Subtraction, Multiplication and Division of Integers (Easiteach) Negative Number and Number Lines (Easiteach) Negative Number and Number Lines Task Negative Numbers - Adding and Subtracting Negative Numbers Software Puzzling Pyramids - Constructing and Solving Equations (Easiteach) Puzzling Pyramids - Constructing and Solving Equations Task 1 Puzzling Pyramids - Constructing and Solving Equations Task 2 Temperature and Money - Adding and Subtracting Positive and Negative Numbers (Easiteach)
GRADE LEVEL EXPECTATION	**N.ME.06.18.**	Understand that rational numbers are quotients of integers (non zero denominators), e.g., a rational number is either a fraction or a negative Adding Decimal Numbers Using a Number Line (Easiteach) Adding Decimals Using a Number Line Task All Mixed Up - Fractions, Mixed Numbers, Decimals and Percents (Easiteach) Am I Rational or Irrational? (Easiteach)

		AtTENtion - Converting Fractions to Decimals (Easiteach) Calculating Simple Fractions of Quantities (Easiteach) Changing Fractions to Decimals - Converting Simple Fractions to Decimals Task Changing Repeating Decimals to Fractions - Convert Between Fractions, Decimals, and Percentages Task Checking Division Using Inverse Operations (Easiteach) Checking Division Using Inverses Task Compare and Order Fractions (Easiteach) Convert between Fractions, Decimals and Percentages (Easiteach) Converting Decimals and Fractions to Percentages Converting Fractions to Decimals and Vice Versa Converting Simple Fractions to Decimals (Easiteach) Converting Simple Fractions to Decimals Task Decimals, Fractions and Percentages - Converting Fractions, Decimals, Percentages Task Fractions as Division (Easiteach) Fractions to Decimals - Convert Between Fractions, Decimals, and Percentages (Easiteach) Loop Cards - Convert Between Fractions, Decimals and Percentages Software Matching Cards (Memory) - Convert Between Fractions and Decimals Software Matching Equivalent Fractions Memory Version Software Matching Equivalent Fractions Software Simplifying Equivalent Fractions - Equivalent Fractions (Easiteach) Simplifying Equivalent Fractions - Equivalent Fractions Task Student Notes - Equivalent Fractions, Ratio and Proportion Student Notes - Fractions, Decimals, Percentages Subtraction Methods - Helpsheet - Subtraction of Decimals Subtraction Methods - Subtraction of Decimals Task Subtraction Methods - Subtraction of Integers and Decimals (Easiteach) Take them Away - Subtraction of Fractions (Easiteach) The Fraction Game - Equivalent Fractions (Easiteach) The Search For Egyptian Gold - Doubling and Halving Decimals Software To the Point - Addition and Subtraction of Integers and Decimals (Easiteach) Top Card - Percentages and Fractions of Amounts (Easiteach) Use the Rules - Adding and Subtracting Fractions Task Visiting All Towns - Investigation Using Addition Algorithm Task We're all equal - Exploring Equivalent Fractions (Easiteach)

		What Do They Mean - Mixed Fractions (Easiteach) What Does 47% Really Mean - Converting Fractions, Decimals, Percentages (Easiteach) Written Multiplication - Extended to Decimals (Easiteach)
GRADE LEVEL EXPECTATION	N.ME.06.19.	Understand that 0 is an integer that is neither negative nor positive. Negative Number and Number Lines (Easiteach) Negative Number and Number Lines Task Negative Numbers - Adding and Subtracting Negative Numbers Software Squares in General - Investigating General Statements (Easiteach)
GRADE LEVEL EXPECTATION	N.ME.06.20.	Know that the absolute value of a number is the value of the number ignoring the sign; or is the distance of the number from 0. Absolute Value (extension activity) Absolute beginners! (Easiteach) Absolute beginners! Task Compare and Order Numbers (Easiteach) Compare and Order Numbers Task
STRAND / STANDARD CATEGORY	**MI.A.**	**Algebra**
STANDARD	A.1.	Calculate rates.
GRADE LEVEL EXPECTATION	A.PA.06.01.	Solve applied problems involving rates, including speed, e.g., if a car is going 50 mph, how far will it go in 3 1/2 hours? Better Buys - Making Comparisons (Easiteach) Better Buys - Making Comparisons Task Mixed Bag - Solving Word Problems (Easiteach) Plot That Journey - Drawing Distance-Time Graphs (Easiteach) Recipe Rewrite - Using Direct Proportion (Easiteach) Speedy Animals - Calculating with Metric Units and Time (Easiteach) The Rate is the Thing (Easiteach) Time Activity - Convert Between Units of Time Task Time and Time Again - Convert Between Units of Time Task

		Time's Up - Calculating with Units of Time (Easiteach) Time's Up - Calculations Involving Time Task Tour de Texas - Converting Units (Easiteach) Train Traveler - Units of Time Software Train Traveler - Units of Time Software What's The Rate? - Solving Problems Involving Compound Measures of Speed, Density and Pressure (Easiteach) What's the Rate? - Word Problems Task
STRAND / STANDARD CATEGORY	**MI.A.**	**Algebra**
STANDARD	**A.2.**	Understand the coordinate plane
GRADE LEVEL EXPECTATION	**A.RP.06.02.**	Plot ordered pairs of integers and use ordered pairs of integers to identify points in all four quadrants of the coordinate plane. Complete the Isosceles Triangle - Identify the Missing Coordinate Pair Worksheet (1) Coordinate Lines Game - Use Coordinates in all Four Quadrants (Easiteach) Coordinate Lines Game - Use Coordinates in all Four Quadrants Task Coordinate Pairs and their Graphs - Plotting Linear Functions (Easiteach) Coordinate Pairs and their Graphs - Plotting Linear Functions Task Coordinates in Four Quadrants (Easiteach) Coordinates in Four Quadrants (GSP) Coordinates in Geometer's Sketchpad(R) - Find Coordinate Points Determined by Geometric Information (GSP) Coordinates in Geometer's Sketchpad(R) - Find Coordinate Points Determined by Geometric Information (GSP) Filling Bottles - Distance-Time Graphs Task Filling Bottles - Relating Graphs to Activities (Easiteach) Find the Graph - Interpreting Height-Time Graphs Task Grid Transformations Using a TI-83 - Solve Problems in Spatial Contexts Task Grid Transformations Using a TI-83 - Solve Problems in Spatial Contexts (Easiteach) Plotting Points in Geometer's Sketchpad(R) Helpsheet - Find Coordinate Points Determined by Geometric Information Plotting Points on a Grid (Easiteach) Polygon Challenge (Teacher File) (GSP) Polygon Challenge - Solve Problems in Spatial Contexts (GSP) Polygon Challenge - Solve Problems in Spatial Contexts Task Polygon Mirrors - Reflections Overlapping Task

		Polygon Mirrors 1 - Reflections Overlapping (GSP) Polygon Mirrors 2 - Reflections Overlapping (GSP) Round the Bend - Graphing Quadratic and Cubic Functions (Easiteach) Student Notes - Coordinate Pairs, Straight Lines and Function Machines Student Notes - Coordinates, Triangles and Quadrilaterals Sunken Salvage - Use Coordinates in all Four Quadrants Software (Customary) The Laboratory - Relationship Between Two Variables (Software) Treasure Hunt - Find Coordinate Points Determined by Geometric Information Software
STRAND / STANDARD CATEGORY	**MI.A.**	**Algebra**
STANDARD	**A.3.**	Use variables, write expressions and equations, and combine like terms
GRADE LEVEL EXPECTATION	**A.FO.06.03.**	Use letters, with units, to represent quantities in a variety of contexts, e.g., y lbs., k minutes, x cookies. Acting Roles - Distinguishing Roles Played by Letter Symbols (Easiteach) Acting Roles - What Do the Letters Represent? Task Assessment - Using Letter Symbols, Collecting Like Terms and Substituting Numbers Beyond Words - Expressing generalized Relationships Using Letters as Symbols (Easiteach) Collecting Data - Designing a Data Collection Activity (Easiteach) Colored Rods - Simplifying Expressions by Collecting Like Terms (Easiteach) Cubes and Marbles - Using Letter Symbols to Represent Variables (Easiteach) Cubes and Marbles - Using Letter Symbols to Represent Variables Task Expanding Parentheses - Multiplying a Single Term over a parenthesis (Easiteach) Expanding Parentheses - Multiplying a Single Term over a parenthesis Task Garden Flowers - Using Letters to Represent Numbers (Easiteach) Garden Flowers - Using Letters to Represent Numbers Task 1 Garden Flowers - Using Letters to Represent Numbers Task 2 Garden Flowers - Using Letters to Represent Numbers Task 3 Numbers and Symbols - Solving Equations (Easiteach) Set It Up - Designing a Data Collection Experiment Task Using Letters - Understanding Algebraic Operations (Easiteach)
GRADE LEVEL EXPECTATION	**A.FO.06.04.**	Distinguish between an algebraic expression and an equation.

EXPECTATION		A Balancing Act - Solving Linear Equations by Transforming Both Sides (Easiteach) Acting Roles - Distinguishing Roles Played by Letter Symbols (Easiteach) Acting Roles - What Do the Letters Represent? Task Equality - Equations, Inequalities, Functions and Formulas (Easiteach) Equality - Equations, Inequalities, Functions and Formulas Task Equality 2 - Equations, Inequalities, Functions and Formulas Task
GRADE LEVEL EXPECTATION	A.FO.06.05.	Use standard conventions for writing algebraic expressions, e.g., 2x + 1 means 'two times x, plus 1' and 2(x + 1) means 'two times the quantity Assessment - Generating Sequences and Using Letter Symbols Assessment - Using Letter Symbols, Collecting Like Terms and Substituting Numbers Beyond Words - Expressing generalized Relationships Using Letters as Symbols (Easiteach) Cubes and Marbles - Using Letter Symbols to Represent Variables (Easiteach) Cubes and Marbles - Using Letter Symbols to Represent Variables Task Decking - Writing and Simplifying Expressions (Easiteach) Decking - Writing and Simplifying Expressions Task Expressing Problems Using Letters - Writing Expressions (Easiteach) Expressing Problems Using Letters - Writing Expressions Task Garden Flowers - Using Letters to Represent Numbers (Easiteach) Garden Flowers - Using Letters to Represent Numbers Task 1 Garden Flowers - Using Letters to Represent Numbers Task 2 Garden Flowers - Using Letters to Represent Numbers Task 3 Simplifying Algebraic Expressions by Collecting Like Terms (Easiteach)
GRADE LEVEL EXPECTATION	A.FO.06.06.	Represent information given in words using algebraic expressions and equations. A Balancing Act - Solving Linear Equations by Transforming Both Sides (Easiteach) Apply It - Solving Problems Using Algebra (Easiteach) Assessment - Generating Sequences and Using Letter Symbols Assessment - Using Letter Symbols, Collecting Like Terms and Substituting Numbers Beyond Words - Expressing generalized Relationships Using Letters as Symbols (Easiteach) Cakes on a Plate - Constructing and Solving Equations

		Cubes and Marbles - Using Letter Symbols to Represent Variables (Easiteach) Cubes and Marbles - Using Letter Symbols to Represent Variables Task Decking - Writing and Simplifying Expressions (Easiteach) Decking - Writing and Simplifying Expressions Task Equation Problems - Construct and Solve Linear Equations (Easiteach) Equation Problems - Construct and Solve Linear Equations Task Equation Word Problems - Constructing and Solving Equations Task Expressing Problems Using Letters - Writing Expressions (Easiteach) Expressing Problems Using Letters - Writing Expressions Task Food and Money Problems - Forming and Solving Linear Equations Task Garden Flowers - Using Letters to Represent Numbers (Easiteach) Garden Flowers - Using Letters to Represent Numbers Task 1 Garden Flowers - Using Letters to Represent Numbers Task 2 Garden Flowers - Using Letters to Represent Numbers Task 3 Inverse Fun - The Inverse of Combined Operations in Functions Task Puzzling Pyramids - Constructing and Solving Equations (Easiteach) Puzzling Pyramids - Constructing and Solving Equations Task 1 Puzzling Pyramids - Constructing and Solving Equations Task 2 Rental Terms - Using Formulas and Substituting Numbers into Formulas (Easiteach) Shopping - Constructing and Solving Equations (Easiteach) Shopping - Solving Equations Using the Balance Method Task Shopping - Solving Equations Using the Inverse Operations Task Simplifying Algebraic Expressions by Collecting Like Terms (Easiteach) Sorting Candy - Constructing Linear Equations (Easiteach) Think of a Number - Constructing and Solving Equations Think of a Number - Solving Linear Equations (Easiteach) Under Construction - Forming, Substituting into and Solving Equations Task What a Bargain! - Deriving Formulas and Substituting Numbers (Easiteach) What's My Number? - Creating and Solving Equations Task
GRADE LEVEL EXPECTATION	A.FO.06.07.	Simplify expressions of the first degree by combining like terms, and evaluate using specific values. Assessment - Solving Equations and Expanding Parentheses Assessment - Using Letter Symbols, Collecting Like Terms and Substituting Numbers

		Card Groups - Substituting Positive and Negative Numbers into Expressions (Easiteach) Card Values - Substituting Positive Numbers into Expressions (Easiteach) Garden Flowers - Using Letters to Represent Numbers (Easiteach) Garden Flowers - Using Letters to Represent Numbers Task 1 Garden Flowers - Using Letters to Represent Numbers Task 2 Garden Flowers - Using Letters to Represent Numbers Task 3 Haunted House - Understanding the Order of Operations for Algebra Software Perimeters of Shapes - Simplifying Expressions by Collecting Like Terms Homework Perimeters of Shapes - Simplifying Expressions by Collecting Like Terms (Easiteach) Simplifying Algebraic Expressions by Collecting Like Terms (Easiteach) Using Letters - Understanding Algebraic Operations (Easiteach)
STRAND / STANDARD CATEGORY	**MI.A.**	**Algebra**
STANDARD	**A.4.**	Represent linear functions using tables, equations, and graphs
GRADE LEVEL EXPECTATION	**A.RP.06.08.**	Understand that relationships between quantities can be suggested by graphs and tables. Apply It - Solving Problems Using Algebra (Easiteach) Assessment - Generating Sequences Including Writing a General Term Assessment - Generating Sequences and Using Letter Symbols Assessment - Primes, Factors, Multiples and Sequences Coordinate Pairs and their Graphs - Plotting Linear Functions (Easiteach) Coordinate Pairs and their Graphs - Plotting Linear Functions Task Difference Method - Determining the General Term of a Linear Sequence Task Dotty Shapes and Hexagons - Describing the General Term of a Sequence (Easiteach) Equality - Equations, Inequalities, Functions and Formulas (Easiteach) Equality - Equations, Inequalities, Functions and Formulas Task Equality 2 - Equations, Inequalities, Functions and Formulas Task Evaluating Linear and Quadratic Expressions Worksheet (1) Evaluating Linear and Quadratic Expressions Worksheet (2) Evaluating Linear and Quadratic Expressions Worksheet (3) Finding Equations of Straight Line Graphs using TI-83 Plus Function Machines - Express Simple Functions in Words (Easiteach)

		Function Machines - Expressing Functions Using Symbols (Easiteach) Function Machines - Expressing Functions using Symbols Task Function Mania - Expressing Functions using Symbols (Easiteach) Functions and Mappings (Easiteach) Functions and Mappings Task Grid Transformations Using a TI-83 - Solve Problems in Spatial Contexts Task Grid Transformations Using a TI-83 - Solve Problems in Spatial Contexts (Easiteach) Introduction to Generating Sequences Using Terms (Easiteach) Introduction to Generating Sequences Using Terms Task More Plotting Functions - Generating Coordinate Pairs that Satisfy a Linear Rule (Easiteach) Paving Patterns - Sequences from Practical Contexts (Easiteach) Paving Patterns - Sequences from Practical Contexts Task Plotting Functions - Generating Coordinate Pairs that Satisfy a Linear Rule (Easiteach) Plotting Functions - Generating Coordinate Pairs that Satisfy a Linear Rule Task Round the Bend - Graphing Quadratic and Cubic Functions (Easiteach) Square Line Patterns - Sequences From Practical Contexts 2 (Easiteach) Square Line Patterns - Sequences from Practical Contexts 1 (Easiteach) Square Line Patterns - Sequences from Practical Contexts Task Square and Cube Numbers (Easiteach) Straight Lines - Discussing and Interpreting Graphs (Easiteach) Straight Lines Again - Discussing and Interpreting Graphs (Easiteach) Student Notes - Coordinate Pairs, Straight Lines and Function Machines Taking Away Negatives - Subtracting Negative Numbers (Easiteach) Triangular Line Patterns - Sequences from Practical Contexts (Easiteach) Triangular Number Pattern - Introducing Triangular Numbers (Easiteach) What is the rule? (Easiteach) What is the rule? Task
GRADE LEVEL EXPECTATION	A.PA.06.09.	Solve problems involving linear functions whose input values are integers; write the equation; graph the resulting ordered pairs of integers, e. chairs? A Balancing Act - Solving Linear Equations by Transforming Both Sides (Easiteach) Apply It - Solving Problems Using Algebra (Easiteach) Arithmagons - Constructing and Solving Equations (Easiteach)

		Assessment - Solving Equations and Expanding Parentheses Blank Arithmagons Sheet - Constructing and Solving Equations Cakes on a Plate - Constructing and Solving Equations Coordinate Pairs and their Graphs - Plotting Linear Functions (Easiteach) Coordinate Pairs and their Graphs - Plotting Linear Functions Task Equation Problems - Construct and Solve Linear Equations (Easiteach) Equation Problems - Construct and Solve Linear Equations Task Equation Word Problems - Constructing and Solving Equations Task Equity - Constructing and Solving Equations with Unknowns on Both Sides (Easiteach) Equity - Constructing and Solving Equations with Unknowns on Both Sides Task Equity 2 - Constructing and Solving Equations with Unknowns on Both Sides Task Food and Money Problems - Forming and Solving Linear Equations Task Numbers and Symbols - Solving Equations (Easiteach) Puzzling Pyramids - Constructing and Solving Equations (Easiteach) Puzzling Pyramids - Constructing and Solving Equations Task 1 Puzzling Pyramids - Constructing and Solving Equations Task 2 Shopping - Constructing and Solving Equations (Easiteach) Shopping - Solving Equations Using the Balance Method Task Shopping - Solving Equations Using the Inverse Operations Task Sorting Candy - Constructing Linear Equations (Easiteach) Student Notes - Constructing and Solving Linear Equations Student Notes - Coordinate Pairs, Straight Lines and Function Machines Student Notes - Solving Equations Substituting Values for Letters in Expressions (Easiteach) Think of a Number - Constructing and Solving Equations Think of a Number - Solving Linear Equations (Easiteach) What's My Number? - Creating and Solving Equations Task
GRADE LEVEL EXPECTATION	A.RP.06.10.	Represent simple relationships between quantities using verbal descriptions, formulas or equations, tables, and graphs, e.g., perimeter-side r A Balancing Act - Solving Linear Equations by Transforming Both Sides (Easiteach) Apply It - Solving Problems Using Algebra (Easiteach) Assessment - Solving Equations and Expanding Parentheses

		Cakes on a Plate - Constructing and Solving Equations Coordinate Pairs and their Graphs - Plotting Linear Functions (Easiteach) Coordinate Pairs and their Graphs - Plotting Linear Functions Task Equation Problems - Construct and Solve Linear Equations (Easiteach) Equation Problems - Construct and Solve Linear Equations Task Equation Word Problems - Constructing and Solving Equations Task Equity - Constructing and Solving Equations with Unknowns on Both Sides (Easiteach) Equity - Constructing and Solving Equations with Unknowns on Both Sides Task Equity 2 - Constructing and Solving Equations with Unknowns on Both Sides Task Evaluating Linear and Quadratic Expressions Worksheet (1) Evaluating Linear and Quadratic Expressions Worksheet (2) Evaluating Linear and Quadratic Expressions Worksheet (3) Finding Equations of Straight Line Graphs using TI-83 Plus Food and Money Problems - Forming and Solving Linear Equations Task Inverse Fun - The Inverse of Combined Operations in Functions Task More Plotting Functions - Generating Coordinate Pairs that Satisfy a Linear Rule (Easiteach) Numbers and Symbols - Solving Equations (Easiteach) Puzzling Pyramids - Constructing and Solving Equations (Easiteach) Puzzling Pyramids - Constructing and Solving Equations Task 1 Puzzling Pyramids - Constructing and Solving Equations Task 2 Round the Bend - Graphing Quadratic and Cubic Functions (Easiteach) Shopping - Constructing and Solving Equations (Easiteach) Shopping - Solving Equations Using the Balance Method Task Shopping - Solving Equations Using the Inverse Operations Task Slope Solutions - Exploring the Slopes of Linear Functions (GSP(R)) Sorting Candy - Constructing Linear Equations (Easiteach) Student Notes - Constructing and Solving Linear Equations Student Notes - Solving Equations Substituting Values for Letters in Expressions (Easiteach) Think of a Number - Constructing and Solving Equations Think of a Number - Solving Linear Equations (Easiteach) What's My Number? - Creating and Solving Equations Task

STRAND / STANDARD CATEGORY	MI.A.	Algebra
STANDARD	A.5.	Solve equations
GRADE LEVEL EXPECTATION	A.FO.06.11.	Relate simple linear equations with integer coefficients, e.g., 3x = 8 or x + 5 = 10, to particular contexts and solve. A Balancing Act - Solving Linear Equations by Transforming Both Sides (Easiteach) Assessment - Generating Sequences and Using Letter Symbols Cross Calculations - Solving Word Problems Using the Four Operations (Easiteach) Cross Calculations - Solving Word Problems Using the Four Operations Task Escape the Cave - Using Letters to Represent Unknown Numbers Software Student Notes - Constructing and Solving Linear Equations Student Notes - Solving Equations
GRADE LEVEL EXPECTATION	A.FO.06.12.	Understand that adding or subtracting the same number to both sides of an equation creates a new equation that has the same solution. A Balancing Act - Solving Linear Equations by Transforming Both Sides (Easiteach) Assessment - Generating Sequences and Using Letter Symbols Cross Calculations - Solving Word Problems Using the Four Operations (Easiteach) Cross Calculations - Solving Word Problems Using the Four Operations Task Equation Word Problems - Constructing and Solving Equations Task Escape the Cave - Using Letters to Represent Unknown Numbers Software Puzzling Pyramids - Constructing and Solving Equations (Easiteach) Puzzling Pyramids - Constructing and Solving Equations Task 1 Puzzling Pyramids - Constructing and Solving Equations Task 2 Student Notes - Constructing and Solving Linear Equations Student Notes - Solving Equations Think of a Number - Constructing and Solving Equations Think of a Number - Solving Linear Equations (Easiteach)
GRADE LEVEL EXPECTATION	A.FO.06.13.	Understand that multiplying or dividing both sides of an equation by the same non-zero number creates a new equation that has the same sol Arithmagons - Constructing and Solving Equations (Easiteach)

		Shopping - Constructing and Solving Equations (Easiteach) Shopping - Solving Equations Using the Balance Method Task Shopping - Solving Equations Using the Inverse Operations Task Student Notes - Constructing and Solving Linear Equations Student Notes - Solving Equations
GRADE LEVEL EXPECTATION	A.FO.06.14.	Solve equations of the form ax + b = c, e.g., 3x + 8 = 15 by hand for positive integer coefficients less than 20, use calculators otherwise, and i A Balancing Act - Solving Linear Equations by Transforming Both Sides (Easiteach) Assessment - Solving Equations and Expanding Parentheses Cakes on a Plate - Constructing and Solving Equations Equation Problems - Construct and Solve Linear Equations (Easiteach) Equation Problems - Construct and Solve Linear Equations Task Equation Word Problems - Constructing and Solving Equations Task Numbers and Symbols - Solving Equations (Easiteach) Puzzling Pyramids - Constructing and Solving Equations (Easiteach) Puzzling Pyramids - Constructing and Solving Equations Task 1 Puzzling Pyramids - Constructing and Solving Equations Task 2 Shopping - Constructing and Solving Equations (Easiteach) Shopping - Solving Equations Using the Balance Method Task Shopping - Solving Equations Using the Inverse Operations Task Student Notes - Constructing and Solving Linear Equations Student Notes - Solving Equations Think of a Number - Constructing and Solving Equations What's My Number? - Creating and Solving Equations Task
STRAND / STANDARD CATEGORY	MI.M.	Measurement
STANDARD	M.1.	Convert within measurement systems
GRADE LEVEL EXPECTATION	M.UN.06.01.	Convert between basic units of measurement within a single measurement system, e.g., square inches to square feet. Assessment - Conversions, Rounding and Order of Operations

		Circular Areas - Finding Areas of Circles Task Circular Areas - Discovering a Formula (Easiteach) Circular Design - Finding the Area of Circular Sections Task Converting Between Metric Units - Internet Converting Metric Units - Convert Between Metric Units (Easiteach) Cross Calculations - Solving Word Problems Using the Four Operations (Easiteach) Cross Calculations - Solving Word Problems Using the Four Operations Task Estimating Weights and Capacities - Know Rough Metric Equivalents of Customary (Standard) Measures (Easiteach) Game Show - Converting Metric and Customary Units (Easiteach) How Far Is It? - Estimating Distance by Length of Pace (Easiteach) Make a Guess - Converting Between Metric Units (Easiteach) Matching Customary Units (6 pairs) - Converting Between Units Software Matching Metric Units 1 - Converting Between Metric Units Software Matching Metric Units 1 - Converting between Metric Units Software Matching Metric Units Memory 1 - Converting Between Metric Units Software Matching Metric Units Memory 1 - Converting Between Metric Units Software Measure It - Using Metric Units of Measurement to Estimate and Calculate (Easiteach) Measure It - Using Metric Units of Measurement to Estimate and Calculate Task Measure Up - Practical Activities Involving Measures Measure Up - Practical Activities Involving Measures Task Measure for Measure - Customary Measure Task Measure for Measure - Customary Measures (Easiteach) Metric Bugs - Convert Between Metric Units Task Metric Units Activities Homework Milkshake Factory - Convert Between liters, cl and ml Software Ratio Using Heights and Maps - Ratio Expressed as n:m (Easiteach) Shares - Ratio and Proportion Task Soccer Fields - Areas of Compound Shapes Task Unit Trouble - Converting Between Metric Units Task Units on a Grand Scale - Converting Between Metric Units Task Waste Not, Want Not - Practical Work with Measures Task What's the Area? - Substituting Numbers into Formulas - Customary (Easiteach)

STRAND / STANDARD CATEGORY	MI.M.	Measurement
STANDARD	M.2.	Find volume and surface area
GRADE LEVEL EXPECTATION	M.PS.06.02.	Draw patterns (of faces) for a cube and rectangular prism that, when cut, will cover the solid exactly (nets). Box Clever - Investigating the Nets of an Open Cube (Easiteach) Constructing Cubes - Identifying Different Nets for a Cube (Easiteach) Customary Containers - Volume of Rectangular Prisms (Easiteach) Unfolding a Cylinder (Animation) Unfolding a Rectangular Prism - W Shape (Animation) Unfolding a Rectangular Prism - T Shape (Animation) Unfolding a Square-based Pyramid (Animation) Viewing Properties - Describing and Visualizing Properties of Solid Shapes (Easiteach) Viewing Properties - Describing and Visualizing Properties of Solid Shapes Task Visualizing Polyhedra - 3-D Shapes and Vocabulary (Internet) We have a Box Problem -Surface Area of Rectangular Prisms (Easiteach)
GRADE LEVEL EXPECTATION	M.TE.06.03.	Compute the volume and surface area of cubes and rectangular prisms given the lengths of their sides, using formulas. Finding the Surface Area and Volume of Prisms (Easiteach) Finding the Volume of Cylinders and Spheres (Easiteach) Finding the Volume of Cylinders and Spheres Task Finding the Volume of Cylinders and Spheres (GSP)
STRAND / STANDARD CATEGORY	MI.G.	Geometry
STANDARD	G.1.	Understand and apply basic properties
GRADE LEVEL EXPECTATION	G.GS.06.01.	Understand and apply basic properties of lines, angles, and triangles, including: triangle inequality; relationships of vertical angles, compleme are cut by a transversal, and that such congruencies imply parallel lines; locate interior and exterior angles of any triangle, and use the prope sum of the exterior angles of a convex polygon is 360 degrees.

		Angle Challenge - Estimating and Ordering Angles (GSP) Animation of Angle Properties - Angles on a Straight Line and in Triangles Software Applying the Triangle Inequality Theorem (Easiteach) Assessment - Describing, Classifying, and Calculating Angles Assessment - Types of Angle Calculating Angles - Angles on a Straight Line (GSP) Cross Calculations - Solving Word Problems Using the Four Operations (Easiteach) Cross Calculations - Solving Word Problems Using the Four Operations Task Exploring Tessellations (Hexagon and Rhombus) - Explanation of Angle Calculations/Facts (GSP) Exploring Tessellations (Hexagon) - Explanation of Angle Calculations/Facts (GSP) Exploring Tessellations (Octagon and Square) - Explanation of Angle Calculations/Facts (GSP) Exploring Tessellations (Parallelogram) - Explanation of Angle Calculations/Facts (GSP) Pentangle Stars- Estimating and Recognizing Angles (Easiteach) Polygon Problems - Interior Angles of Polygons Homework Polygon Proof - Interior Angle Sums of Polygons (GSP) Polygon Proof - Interior Angle Sums of Polygons Task Polytiles - Explain Reasoning with Diagrams and Text Task Prove It - Distinguishing Between Practical Demonstration and Proof (GSP) Student Notes - Angle Facts Student Notes - Angle Properties of Polygons Student Notes - Coordinates, Triangles and Quadrilaterals Student Notes - Types of Angle Triangle Angles - Angles in a Triangle Task Triangle Review - Interior and Exterior Angles (GSP) Triangle Tessellations - Angles in a Triangle Task Vertically Opposite Angles (GSP)
STRAND / STANDARD CATEGORY	**MI.G.**	**Geometry**
STANDARD	**G.2.**	Understand the concept of congruence and basic transformations
GRADE LEVEL EXPECTATION	**G.GS.06.02.**	Understand that for polygons, congruence means corresponding sides and angles have equal measures. Crazy Paving 1 - Translate Shapes on a Grid Software

		Crazy Paving 2 - Translate Shapes on a Grid Software Drawing Reflections Using a TI-83 - Reflect Program Task Drawing Reflections Using a TI-83 - Reflections Overlapping Task Drawing Reflections Using a TI-83 - Two Mirrors Program Task Drawing Reflections Using a TI-83-Diagonal Program Task Shapes on a Geoboard - Triangles and Quadrilaterals (Easiteach) Shapes on a Geoboard - Triangles and Quadrilaterals Task Student Notes for Geometry - Transformation, Symmetry, Ratio and Proportion Student Notes for Measurement (and Geometry) - Congruence, Similarity, Transformations, Planes of Symmetry, Scale Drawi Take a Quarter - Solving Geometrical Problems (GSP) Take a Quarter - Solving Geometrical Problems Task The Shape's the Same - Congruence (GSP)
GRADE LEVEL EXPECTATION	G.TR.06.03.	Understand the basic rigid motions in the plane (reflections, rotations, translations), relate these to congruence, and apply them to solve pro Drawing Reflections Using a TI-83 - Reflect Program Task Drawing Reflections Using a TI-83 - Reflections Overlapping Task Drawing Reflections Using a TI-83 - Two Mirrors Program Task Drawing Reflections Using a TI-83-Diagonal Program Task Grow On - Dilation 2-D shapes with Positive Whole-Number Scale Factors Task Grow On - Dilation of 2-D Shapes with Positive, Whole-Number Scale Factors (GSP) Grow on a Grid - Dilating 2-D Shapes Task Grow on a Grid - Dilation of 2-D Shapes with Center (0, 0) (Microsoft(R) Excel)
GRADE LEVEL EXPECTATION	G.TR.06.04.	Understand and use simple compositions of basic rigid transformations, e.g., a translation followed by a reflection. Order, Order - Combined Transformations Task Paper Patterns - Combinations of Translations, Reflections and Rotations Task Student Notes for Geometry - Transformation, Symmetry, Ratio and Proportion Student Notes for Measurement (and Geometry) - Congruence, Similarity, Transformations, Planes of Symmetry, Scale Drawi Transform - Combined Transformations (GSP)

		Transformation Scene - Combinations of Translations, Reflections and Rotations (GSP)
STRAND / STANDARD CATEGORY	MI.G.	Geometry
STANDARD	G.3.	Construct geometric shapes
GRADE LEVEL EXPECTATION	G.SR.06.05.	Use paper folding to perform basic geometric constructions of perpendicular lines, midpoints of line segments and angle bisectors; justify info Accurate Constructions - Animations Software Compass Animations - Constructions Using Straight Edge and Compasses Software Exploring Midpoints - Constructing Midpoints and Bisectors Task Find Math Money! - Using Loci in Problem Solving (Easiteach) Keep Your Distance - Constructing Perpendicular Bisectors (Easiteach) Live Loci - Constructing Loci (GSP) Locus and Constructions - The Distance From Two Points Task Navigation Problems - Using Loci Task Perpendicular Bisectors - Investigating and Proving (GSP) Polygon Problems - Straight Edge and Compass Constructions (GSP)
STRAND / STANDARD CATEGORY	MI.D.	Data and Probability
STANDARD	D.1.	Understand the concept of probability and solve problems
GRADE LEVEL EXPECTATION	D.PR.06.01.	Express probabilities as fractions, decimals, or percentages between 0 and 1; know that 0 probability means an event will not occur and that Assessment - Probability Assessment - Theoretical and Experimental Probability Chance It - Solving Simple Probability Problems (Easiteach) Collecting Results for One Die - Collecting Data from an Experiment (Excel) Comparing Experimental and Theoretical Probabilities (Easiteach) Exhausting Work - Strategies for Finding Probabilities Task Fair Game - Games and the Laws of Probability (Easiteach) Find that Probability - Using the Laws of Probability Task

		Fundraising Fun - Using Probability to Play Games (Easiteach)
		Funny Die - Comparing Theoretical Frequencies with Experimental Data Samples Task
		It's Exhausting - Identifying All Outcomes Task
		Pick and Mix Family - Identifying Outcomes (Easiteach)
		Place your Bets! - Using the Excel Pinball Activity (Excel)
		Play the Game! - Probability of Chance Task
		Probability Events Worksheet
		Probability Line - Introducing the Probability Scale (Easiteach)
		Probability Line - Introducing the Probability Scale Task
		Probability Scale - Calculating Probabilities (Easiteach)
		Probability Scale - Calculating Probabilities Task
		Probability Trees with Coins (bias) Worksheet (1)
		Probability Trees with Coins (bias) Worksheet (2)
		Probability Trees with Coins Worksheet
		Probability Trees with Health Warning Worksheet
		Probability Trees with Traffic Lights (bias) Worksheet
		Probability with Spinners Worksheet
		Probably Easy? - Solving Probability Problems Task
		Roll Die 1 Program - Die Simulation on TI-83 Plus Task
		Roll Die 2 Program - Die Simulation on TI-83 Plus Task
		Rolltet - Tetrahedral Die Simulation on TI-83 Plus Task
		Spinners Probability Software
		Spinners and Beads - Finding Probabilities (Easiteach)
		Spinners and Beads - Finding Probabilities Task
		Student Notes - Probability
		Taking a Chance - Using Excel Simulation of Spinning Three Coins (Microsoft(R) Excel)
		That is the Law! - Laws of Probability Task
		That's My Theory, Watson! - Theoretical Probability Using Tree Diagrams Task
		Throwing a Tetrahedral Die Homework - Collecting Data from an Experiment
		Tossing Coins - Collecting Data from an Experiment (Excel)
		Tossing Coins Simulation - Spincoin 1 Program Task (TI-83 Plus)
		Tossing Coins Simulation - Spincoin 2 Program Task (TI-83 Plus)
		Tossing Coins Simulation - Using Experimental Data to Estimate Probabilities Task (TI-83 Plus)
		Tossing Coins Simulation - Using Experimental Data to Estimate Probabilities Task (TI-83 Plus)

		What Chance - Solving Simple Problems Using Probability (Easiteach) What Chance Have I Got? - Interpreting Results (Easiteach) What a Funny Die! - Constructing a Tetrahedral Die and Using It Task What a Funny Die! - Samples from a Tetrahedral Die (Easiteach) What's Happening? - Recording Outcomes for Probability in a Systematic Way (Easiteach) Which Dice? - Using the Laws of Probability for Problem Solving (Easiteach)
GRADE LEVEL EXPECTATION	D.PR.06.02.	Compute probabilities of events from simple experiments with equally likely outcomes, e.g., tossing dice, flipping coins, spinning spinners, by Dicing with Numbers - Identifying All Possible Outcomes (Easiteach) Dicing with Numbers - Identifying All Possible Outcomes Task Exhausting Work - Strategies for Finding Probabilities Task Find that Probability - Using the Laws of Probability Task Fundraising Fun - Using Probability to Play Games (Easiteach) Happy Families Probability Problem - Listing Possible Outcomes (Easiteach) It's Exhausting - Identifying All Outcomes Task Place your Bets! - Using the Excel Pinball Activity (Excel) Play the Game! - Probability of Chance Task Probability Trees with Coins (bias) Worksheet (1) Probability Trees with Coins (bias) Worksheet (2) Probability Trees with Coins Worksheet Probability Trees with Health Warning Worksheet Probability Trees with Traffic Lights (bias) Worksheet Sort It - Using the Laws of Probability (Easiteach) Spinners Probability Software Taking a Chance - Using Excel Simulation of Spinning Three Coins (Microsoft(R) Excel) That is the Law! - Laws of Probability Task What's Happening? - Recording Outcomes for Probability in a Systematic Way (Easiteach) Which Dice? - Using the Laws of Probability for Problem Solving (Easiteach)

STRAND / STANDARD CATEGORY	MI.N.	Number and Operations
STANDARD	N.1.	Understand derived quantities
GRADE LEVEL EXPECTATION	N.MR.07.02.	Solve problems involving derived quantities such as density, velocity, and weighted averages. Copper Experiment - Using Formulas from Science Task Stop Time - Metric Length Calculations (Easiteach) What's The Rate? - Solving Problems Involving Compound Measures of Speed, Density and Pressure (Easiteach)
STRAND / STANDARD CATEGORY	MI.N.	Number and Operations
STANDARD	N.2.	Understand and solve problems involving rates, ratios, and proportions
GRADE LEVEL EXPECTATION	N.FL.07.03.	Calculate rates of change including speed. It Takes Time - Interpreting Distance-Time Graphs (Easiteach) Relay Race - Different Ways of Expressing Speed (Easiteach) Relay Race - Different Ways of Expressing Speed Task Slope Solutions - Exploring the Slopes of Linear Functions (GSP(R)) Speedy Animals - Calculating with Metric Units and Time (Easiteach) Student Notes for Algebra - Functions, Mapping Diagrams, Graphs of Linear Functions and Distance-Time Graphs Tanks - Using Metric Units (Easiteach) The Rate is the Thing (Easiteach) The Rate is the Thing Task Tour de Texas - Converting Units (Easiteach) Up To Speed - Using the Formula for Calculating Speed Task Up To Speed - Using the Formula to Calculate and Compare Speeds (Easiteach) What's The Rate? - Solving Problems Involving Compound Measures of Speed, Density and Pressure (Easiteach)
GRADE LEVEL EXPECTATION	N.MR.07.04.	Convert ratio quantities between different systems of units, such as feet per second to miles per hour. Speedy Animals - Calculating with Metric Units and Time (Easiteach) Stop Time - Metric Length Calculations (Easiteach)

		Up To Speed - Using the Formula for Calculating Speed Task Up To Speed - Using the Formula to Calculate and Compare Speeds (Easiteach)
GRADE LEVEL EXPECTATION	N.FL.07.05.	Solve proportion problems using such methods as unit rate, scaling, finding equivalent fractions, and solving the proportion equation a/b = c/ Keep It in Proportion - Solving Problems Involving Direct Proportion Task Keep it in Proportion - Solving Problems Involving Direct Proportion (Easiteach) Maps and Models - Using Ratio (Easiteach) Maps and Models - Using Ratios Task Puzzling Problems - GCF & LCM Task Scales and Plans - Using Ratio Scales to Solve Problems (Easiteach) Sherlock Gnomes - Using Analytic Skills to Solve Number Problems (Easiteach) Ski Run - Applying Mental Skills to Solve Simple Problems (Easiteach) Solving Problems - Spaghetti Bolognese Task Squidge City Central - Proportion Software Squidge City Central - Ratio Software Sweet Treat - Solving Problems Involving Sharing in a Given Ratio Task Track Race - Solving Simple Problems (Easiteach) Triangle Ratios - Solving Problems with Ratio and Angles Task Using Shadows - Using Scale and Ratio to Estimate Heights Task What's the Rate? - Word Problems Task Working With Scale - Using Ratios for Scale Drawing Task
STRAND / STANDARD CATEGORY	MI.N.	Number and Operations
STANDARD	N.3.	Recognize irrational numbers
GRADE LEVEL EXPECTATION	N.MR.07.06.	Understand the concept of square root and cube root, and estimate using calculators. Am I Rational or Irrational? (Easiteach) Assessment - Integers, Powers, Roots, Sequences and Functions Chains - Squares, Square Roots, Cubes and Cube Roots Task Cube Root Challenge - Finding Cube Roots Using Trial and Improvement (Easiteach)

		Cube Root Challenge - Finding Cube Roots Using Trial and Improvement Task Follow On - Using Squares, Cubes, Roots and exponent Notation Task Is It Near Enough? - Using Approximations to Estimate the Answers to Calculations (Easiteach) NumCross - Calculating with Mixed Operations (Easiteach) Power Bingo - Using Squares, Roots and Cubes (Easiteach) Powers and Roots - Calculating Squares, Cubes and Roots Task Powers and Roots - Upper and Lower Bounds for Square Roots (Easiteach) Powers, Roots and Fractions - Using the TI-83 Plus Graphic Calculator Square Numbers and Square Roots (Easiteach) Square and Cube Numbers (Easiteach) Squares and Cubes - Finding Squares, Square Roots, Cubes and Cube Roots Task Squares and Square Roots - Finding Squares and Square Roots of Numbers (Easiteach) Student Notes for Number and Algebra - Integers, Powers, Roots, Sequences and Functions What Power - Knowing Squares, Cubes, Roots and Exponent Notation (Easiteach)
STRAND / STANDARD CATEGORY	**MI.N.**	**Number and Operations**
STANDARD	**N.4.**	Compute with rational numbers
GRADE LEVEL EXPECTATION	**N.FL.07.07.**	Solve problems involving operations with integers. Add and Take - Addition and Subtraction of Integers and Decimals (Microsoft Excel) Add and Take - Addition and Subtraction of Integers and Decimals (Microsoft(R) Excel) Add'n'Take - Addition and Subtraction of Fractions Task Against The Clock - Integer Operations (Easiteach) Assessment - Integers, Powers, Roots, Sequences and Functions Calculator Ban - Understanding the Laws of Arithmetic and Parentheses Task Calculator Complements - Complements to 0.1, 1, 10, 50, 100 and 1000 (TI-83 Plus) Calculator Explorations - Multiplying and Dividing Negative Numbers Task Compare and Order Numbers (Easiteach) Compare and Order Numbers Task Dice Games - Adding and Subtracting Negative Numbers Task Dice Games Using the TI-83 Plus Dice Games with a Graphic Calculator - Adding and Subtracting Negative Numbers Task

		Dice Number line Game - Adding and Subtracting Positive and Negative Numbers (Easiteach) Get in Lane - Adding, Subtracting, Multiplying and Dividing Integers (Easiteach) Hexagon Maze - Add, Subtract, Multiply, Divide Integers (Easiteach) Hexagon Route - Add, Subtract, Multiply, Divide Integers (Easiteach) Magic Square Challenge - Substituting Numbers into Expressions and Solving Equations (Microsoft(R) Excel) Magic Square Challenge - Substituting Numbers into Expressions and Solving Equations Task Missing Numbers - Addition, Subtraction, Multiplication and Division of Integers (Easiteach) Missing Numbers - Addition, Subtraction, Multiplication and Division of Integers Task Missing Numbers - Solving Linear Equations Task Multiplying - Negative Numbers (Easiteach) Multiplying - Negative Numbers Task Multiplying and Dividing Negative Numbers Task Near Tens - Multiplying by Near Tens (Easiteach) Negative Number Puzzles 1 - Adding and Subtracting Negative Numbers Task Negative Number Puzzles 2 - Adding and Subtracting Negative Numbers Task Negative Number Puzzles 3 - Multiplying and Dividing Negative Numbers Task Negative Number and Number Lines (Easiteach) Negative Numbers - Adding and Subtracting Negative Numbers Software No Clues - Using Mental Calculations Task Octagon Route - Add, Subtract, Multiply, Divide Integers (Easiteach) Order of Operations - Parentheses (Easiteach) Remember the Order - Using the Order of Operations Task Student Notes for Number and Algebra - Integers, Powers, Roots, Sequences and Functions Subtracting with Parentheses (Easiteach) Switch - Calculations Software Taking Away Negatives - Subtracting Negative Numbers (Easiteach) Taking Away Negatives - Subtracting Negative Numbers Task Temperature and Money - Adding and Subtracting Positive and Negative Numbers (Easiteach) Through the Maze - Adding, Subtracting, Multiplying and Dividing Integers (Easiteach) Write It Down - Use notes to Support Addition, Subtraction, Multiplication and Division (Easiteach)
GRADE LEVEL EXPECTATION	N.FL.07.08.	Add, subtract, multiply, and divide positive and negative rational numbers fluently. Add them up - Addition of Fractions (Easiteach)

Add'n'Take - Addition and Subtraction of Fractions Task
Alien Escape - Add and Subtract Decimals Student Software
Alien Escape - Add and Subtract Decimals Teacher Software
Alien Escape - Add and Subtract Decimals Teacher Software
All Around - Standard Algorithms for Addition and Subtraction Task
Assessment - Fractions, Multiplication, Division, Addition and Subtraction, Order of Operations, Units of Time
Assessment - Rounding, Estimating and Standard Methods of Calculation
Calculator Explorations - Multiplying and Dividing Negative Numbers Task
Checking Division Using Inverse Operations (Easiteach)
Count On - Counting On and Back in Fraction Steps
Cutting Questions - Standard Algorithm for Decimal Division Notes
Decimal Darts - Calculations Strategy Software
Decimal Magic - Locating Decimal Points (Easiteach)
Decimal Routes - Addition and Subtraction of Decimals Task
Decimal Switch - Calculations Software
Divide and Rule - Standard Algorithm for Division of Decimals Task
Don't Wait, Let's Estimate - Methods of Estimation (Easiteach)
Easy Times Ahead - Multiplication Methods with Decimals Task
Escaping Decimal Points - Estimation (Easiteach)
Estimate - Multiplication and Division Task
Fraction Rules - Adding and Subtracting Fractions (Easiteach)
Fraction Tangram - Adding Fractions (Easiteach)
Fraction Tangram - Adding Fractions Task
Fractions Galore - Addition and Subtraction of Fractions (Easiteach)
Fractions Galore - Addition and Subtraction of Fractions Task
Friendly Methods - Using Mental Methods of Calculation (Easiteach)
Great Times - Multiplication using a Standard Column Method (Easiteach)
Great Times on Long Island - Multiplication Using a Standard Column Algorithm Task
How Much? - Fractions of Quantities (Task)
Lets Share It! Division with Integers (Easiteach)
Lets Share It! Division with Integers Task
Lost Time - Reviewing Standard Algorithm for Multiplying Decimals Task
Make the Connection - Using Direct Proportion Task
Math Families - Using Factors to Multiply and Divide

Mistaken - Addition and Subtraction of Integers and Decimals Task
Mixed and Improper - Converting Between Improper Fractions and Mixed Numbers (Easiteach)
Multiplication and Division Dominoes - Consolidating Multiplication and Division Skills (Easiteach)
Multiplying Decimals - Algorithm method
Post the Laws - Remembering the Laws of Arithmetic Task
Price Changes - Percentage Increases and Decreases (Easiteach)
Price increase! - Calculate Percentages (Easiteach)
Puzzling Percentages - Percentage Increase and Decrease Task
Routes - Standard Format for Addition and Subtraction of Decimals Task
Routes - Standard Methods for Addition and Subtraction (Easiteach)
Sale! - Calculate Simple Percentages of Quantities (Easiteach)
Same but Different - Using Different Strategies for Mental Calculations (Easiteach)
Shared Activities - Division using a Standard Column Method (Easiteach)
Shared Activities on Long Island - Using a Standard Division Algorithm Task
Slalom Racer - Decimal Calculations Software (Student)
Slalom Racer - Decimal Calculations Software (Teacher)
Slit Them - Using Partitioning to Multiply an Integer by a Decimal (Easiteach)
Split and Solve - Using Partitioning in Multiplication (Easiteach)
Student Notes for Number and Operations - Fractions, Decimals and Percentages
Supermarket Offers - Percentage Increase and Decrease (Easiteach)
Take Apart - Using Partitioning to Multiply a Decimal by a Whole Number (Easiteach)
Take them Away - Subtraction of Fractions (Easiteach)
Targets - Complements of 0.1, 1 and 100 (Easiteach)
Taxing Problems Using Percents (Easiteach)
Taxing Problems Using Percents Task
Temperature and Money - Adding and Subtracting Positive and Negative Numbers (Easiteach)
The Final Cut - Standard Algorithm for Decimal Division Task
Tic-Tac-Toe - Calculate Using Multiplication, Division and Place Value (Easiteach)
To the Point - Addition and Subtraction of Integers and Decimals Task
Top Card - Percentages and Fractions of Amounts (Easiteach)
Top Card - Percentages and Fractions of Amounts Task
Trio Calculate - Converting and Calculating with Fractions, Decimals and Percentages (Easiteach)
Trios - Finding Equivalent Fractions, Decimals and Percentages Task
Triplets - Using Factors to Multiply and Divide Mentally (Easiteach)

		Use the Rules - Adding and Subtracting Fractions Task Visiting All Towns - Investigation Using Addition Algorithm Task Ways and Means - Calculating Percentages (Easiteach) Ways and Means 1 - Calculating Percentages Task Ways and Means 2 - Calculating Percentages Task
GRADE LEVEL EXPECTATION	N.FL.07.09.	Estimate results of computations with rational numbers. Adding 2-Digit Numbers - Mental Methods (Easiteach) Adding 2-Digit Numbers - Mental Methods Task Assessment - Rounding, Estimating and Standard Methods of Calculation Clumping - Developing Column Procedures for Multiplication through Partitioning (Easiteach) Clumping - Multiplication Methods Task Cube Root Challenge - Finding Cube Roots Using Trial and Improvement (Easiteach) Cube Root Challenge - Finding Cube Roots Using Trial and Improvement Task Cutting Questions - Standard Algorithm for Decimal Division Notes Divide and Rule - Standard Algorithm for Division of Decimals Task Don't Wait, Let's Estimate - Methods of Estimation (Easiteach) Easy Times Ahead - Multiplication Methods with Decimals Task Estimate - Multiplication and Division Task Estimate - Using Approximations to Estimate Answers (Easiteach) Estimate Challenge - Using Approximations to Estimate Answers to Questions (Easiteach) Estimating with Scientific Notation (Division) Worksheet Estimating with Scientific Notation (Multiplication) Worksheet Great Times - Multiplication using a Standard Column Method (Easiteach) Great Times on Long Island - Multiplication Using a Standard Column Algorithm Task Guess the Position - Making Accurate Estimates (Easiteach) Is It Near Enough? - Using Approximations to Estimate the Answers to Calculations (Easiteach) It's About - Using Approximations to Estimate Answers (Easiteach) Jumping to Conclusions - Checking Results Task Make a Check - Checking Results (Easiteach) Multiplying Decimals - Algorithm method Nearly - Choosing the Best Approximation for Calculations (Easiteach) Roughly the Answer - Estimating Calculations to One Significant Figure (Easiteach)

		Student Notes for Number and Operations - Rounding, Estimating and Standard Methods of Calculation Track Race - Solving Simple Problems (Easiteach) Who is Right? - Checking Answers Task
STRAND / STANDARD CATEGORY	**MI.A.**	**Algebra**
STANDARD	**A.1.**	Understand and apply directly proportional relationships and relate to linear relationships
GRADE LEVEL EXPECTATION	**A.PA.07.01.**	Recognize when information given in a table, graph, or formula suggests a directly proportional or linear relationship. A Day in the Life of a School Vending Machine - Interpreting Graphs (Easiteach) A Day in the Life of a School Vending Machine - Interpreting Graphs - Task Cellular Price Plans - Plotting and Interpreting Graphs of Linear Functions (Easiteach) Copper Experiment - Using Formulas from Science Task Directly Proportional - Solving Problems Involving Direct Proportion (TI-83 Plus) Directly Proportional - Solving Problems Involving Direct Proportion Task Directly Proportional - Solving Problems Involving Direct Proportion Task Filling Bottles - Distance-Time Graphs Task Filling Bottles - Relating Graphs to Activities (Easiteach) Find the Graph - Interpreting Height-Time Graphs Task Inverse Proportion Worksheet (1) Inverse Proportion Worksheet (2) Inverse Proportion Worksheet (3) Keep It in Proportion - Solving Problems Involving Direct Proportion Task Keep it in Proportion - Solving Problems Involving Direct Proportion (Easiteach) Plot That Graph - Drawing Distance-Time Graphs Task Plot That Journey - Drawing Distance-Time Graphs (Easiteach) The Laboratory - Relationship Between Two Variables (Software)
GRADE LEVEL EXPECTATION	**A.RP.07.02.**	Represent directly proportional and linear relationships using verbal descriptions, tables, graphs, and formulas, and translate among these rep A Balancing Act - Solving Linear Equations by Transforming Both Sides (Easiteach) A Balancing Act Part II - Solving Linear Equations by Transforming Both Sides (Easiteach)

Acting Roles - Distinguishing Roles Played by Letter Symbols (Easiteach)
Acting Roles - What Do the Letters Represent? Task
Apply It - Solving Problems Using Algebra (Easiteach)
Cakes on a Plate - Constructing and Solving Equations
Cellular Price Plans - Plotting and Interpreting Graphs of Linear Functions (Easiteach)
Construct and Solve - Writing and Solving Linear Equations Using Different Methods (Easiteach)
Directly Proportional - Solving Problems Involving Direct Proportion (TI-83 Plus)
Directly Proportional - Solving Problems Involving Direct Proportion Task
Directly Proportional - Solving Problems Involving Direct Proportion Task
Dot To Dot - Methods Of Deriving Formulae Relating To Number Systems (Easiteach)
Equality - Equations, Inequalities, Functions and Formulas (Easiteach)
Equality - Equations, Inequalities, Functions and Formulas Task
Equality 2 - Equations, Inequalities, Functions and Formulas Task
Equation Problems - Construct and Solve Linear Equations (Easiteach)
Equation Problems - Construct and Solve Linear Equations Task
Equation Word Problems - Constructing and Solving Equations Task
Family Draw - Blank Answer Sheet for the Discovering Properties of Families Task
Family Draw - Discovering Properties of Families of Functions Task
Fantastic Functions - Exploring Inverse Functions Task
Find the Number - Solving Equations (Easiteach)
Food and Money Problems - Forming and Solving Linear Equations Task
Go for Graphs - Solving Linear Equations by Graphical Methods Task
Go for Graphs - Solving Linear Equations by Graphical Methods Task (TI-83 Plus)
Go with the Flow - Writing and Solving Equations Task
Grand Tour - Using Conversion Graphs Task
Graph Plot - Drawing Straight Line Graphs (Easiteach)
Graphic Reality - Interpreting Real-Life Graphs (Easiteach)
Graphic Reality - Interpreting Real-Life Graphs Task
How do I look? Graphing Inverse Functions
Inclined - Investigating Equations of the Line in Straight-Line Graphs (Easiteach)
Inverse Fun - The Inverse of Combined Operations in Functions Task
Line Detective - Understanding Properties of Simple Functions Task
Line Draw - A Resource Sheet for Drawing Straight Line Graphs
Line Draw - Drawing Graphs by Plotting Points Task

Line Sketch - Sketching Lines of Graphs from Their Equations (Easiteach)
Line Sketch - Sketching Lines of Graphs from Their Equations Task
Line, Match and Points - Equations of Graphs and Coordinate Pairs Task
Lines Investigation - Coordinates of the Midpoint of a Line Segment Task
Make the Connection - Using Direct Proportion Task
Plotting Pairs - Generating Co-ordinate Pairs and Plotting Graphs Task
Plotting Points on a Line: y=2x Worksheet (6)
Plotting Points on a Line: y=2x-4 Worksheet (8)
Plotting Points on a Line: y=4x-5 Worksheet (15)
Plotting Points on a Line: y=x Worksheet (2)
Practical Problems - Writing and Solving Linear Equations Task
Recipe Rewrite - Using Direct Proportion (Easiteach)
Reflect It - Naming Equations of Lines Task
Shape Draw - A Problem Task
Shape and Number Problems - Forming and Solving Linear Equations Task
Sherlock Gnomes - Using Analytic Skills to Solve Number Problems (Easiteach)
Sketching Lines of Graphs from Their Equations Task (y = mx + b)
Slope Solutions - Exploring the Slopes of Linear Functions (GSP(R))
Sorting Candy - Constructing Linear Equations (Easiteach)
Steeped in Lines - Investigating Linear Graphs Using the General Form Task
Student Notes for Algebra - Functions, Mapping Diagrams, Graphs of Linear Functions and Distance-Time Graphs
Student Notes for Algebra - Simplifying Expressions, Constructing and Solving Linear Equations, Straight-Line Graphs
Table It - Producing Tables of Values on a Graphic Calculator (T1-83 Plus)
Table It - Producing Tables of Values using a T1-83 Plus Graphic Calculator Task
Think of a Number - Constructing and Solving Equations
Think of a Number - Constructing and Solving Equations Task
Think of a Number - Making Linear Equations Task
Think of a Number - Solving Linear Equations (Easiteach)
Track Race - Solving Simple Problems (Easiteach)
Tricky Equations - Solving Linear Equations Task
Under Construction - Forming, Substituting into and Solving Equations Task
Up To Speed - Using the Formula for Calculating Speed Task
Up To Speed - Using the Formula to Calculate and Compare Speeds (Easiteach)
What's My Number? - Creating and Solving Equations Task

GRADE LEVEL EXPECTATION	A.PA.07.03.	Given a directly proportional or other linear situation, graph and interpret the slope and intercept(s) in terms of the original situation; evalua

Acting Roles - Distinguishing Roles Played by Letter Symbols (Easiteach)
Acting Roles - What Do the Letters Represent? Task
Assessment - Functions, Mapping Diagrams, Graphs of Linear Functions and Distance-Time Graphs
Assessment - Simplifying Expressions, Constructing and Solving Linear Equations, Straight-Line Graphs
Direct Line - Using Graphs to Solve Simple Problems Involving Direct Proportion (Easiteach)
Family Draw - Blank Answer Sheet for the Discovering Properties of Families Task
Family Draw - Discovering Properties of Families of Functions Task
Family Plot - Discovering Properties of Families of Functions (TI-83 Plus)
Family Plot - Plotting Linear Functions on a Graphic Calculator (TI-83 Plus)
Find Four Points on a Line: ax + by = c Worksheet
Four points in a Line: y = mx + b Worksheet
Function Families - Using the TI-83 Plus to Explore Functions
Go for Graphs - Solving Linear Equations by Graphical Methods Task
Go for Graphs - Solving Linear Equations by Graphical Methods Task (TI-83 Plus)
Go with the Flow - Writing and Solving Equations Task
Graph Plot - Drawing Straight Line Graphs (Easiteach)
Graphic Reality - Interpreting Real-Life Graphs (Easiteach)
Graphic Reality - Interpreting Real-Life Graphs Task
How do I look? Graphing Inverse Functions
Line Detective - Understanding Properties of Simple Functions Task
Line Draw - A Resource Sheet for Drawing Straight Line Graphs
Line Draw - Drawing Graphs by Plotting Points Task
Line Sketch - Sketching Lines of Graphs from Their Equations (Easiteach)
Line Sketch - Sketching Lines of Graphs from Their Equations Task
Line, Match and Points - Equations of Graphs and Coordinate Pairs Task
Make the Connection - Using Direct Proportion Task
Plotting Pairs - Generating Co-ordinate Pairs and Plotting Graphs Task
Plotting Points on a Line: -2x+y=8 Worksheet (11)
Sketching Lines of Graphs from Their Equations Task (y = mx + b)
Steeped in Lines - Investigating Linear Graphs Using the General Form Task

		Straight Questioning - Interpreting Distance - Time Graphs Task Straight Talking - Interpreting Distance-Time Graphs Task Student Notes for Algebra - Functions, Mapping Diagrams, Graphs of Linear Functions and Distance-Time Graphs Table It - Producing Tables of Values on a Graphic Calculator (T1-83 Plus) Table It - Producing Tables of Values using a T1-83 Plus Graphic Calculator Task Take a Bath - Interpreting Graphs Task Up To Speed - Using the Formula for Calculating Speed Task Up To Speed - Using the Formula to Calculate and Compare Speeds (Easiteach)
GRADE LEVEL EXPECTATION	A.PA.07.04.	For directly proportional or linear situations, solve applied problems using graphs and equations, e.g., the heights and volume of a container v Fahrenheit; distance and time under constant speed. A Balancing Act Part II - Solving Linear Equations by Transforming Both Sides (Easiteach) Equation Problems - Construct and Solve Linear Equations (Easiteach) Equation Problems - Construct and Solve Linear Equations Task Under Construction - Forming, Substituting into and Solving Equations Task
GRADE LEVEL EXPECTATION	A.PA.07.05.	Recognize and use directly proportional relationships of the form y = mx, and distinguish from linear relationships of the form y = mx + b, b no multiple of the other quantity. Acting Roles - Distinguishing Roles Played by Letter Symbols (Easiteach) Acting Roles - What Do the Letters Represent? Task Assessment - Equations and Formulas Assessment - Functions, Mapping Diagrams, Graphs of Linear Functions and Distance-Time Graphs Assessment - Simplifying Expressions, Constructing and Solving Linear Equations, Straight-Line Graphs Cellular Price Plans - Plotting and Interpreting Graphs of Linear Functions (Easiteach) Directly Proportional - Solving Problems Involving Direct Proportion (TI-83 Plus) Directly Proportional - Solving Problems Involving Direct Proportion Task Directly Proportional - Solving Problems Involving Direct Proportion Task Equality - Equations, Inequalities, Functions and Formulas (Easiteach) Equality - Equations, Inequalities, Functions and Formulas Task Equality 2 - Equations, Inequalities, Functions and Formulas Task Equation Problems - Construct and Solve Linear Equations (Easiteach)

		Equation Problems - Construct and Solve Linear Equations Task Family Draw - Blank Answer Sheet for the Discovering Properties of Families Task Family Draw - Discovering Properties of Families of Functions Task Family Plot - Discovering Properties of Families of Functions (TI-83 Plus) Family Plot - Plotting Linear Functions on a Graphic Calculator (TI-83 Plus) Find Four Points on a Line: ax + by = c Worksheet Four points in a Line: y = mx + b Worksheet Function Families - Using the TI-83 Plus to Explore Functions Go for Graphs - Solving Linear Equations by Graphical Methods Task Go for Graphs - Solving Linear Equations by Graphical Methods Task (TI-83 Plus) Go with the Flow - Writing and Solving Equations Task Graph Plot - Drawing Straight Line Graphs (Easiteach) Graphic Reality - Interpreting Real-Life Graphs (Easiteach) Graphic Reality - Interpreting Real-Life Graphs Task Inclined - Investigating Equations of the Line in Straight-Line Graphs (Easiteach) Line Detective - Understanding Properties of Simple Functions Task Line Draw - A Resource Sheet for Drawing Straight Line Graphs Line Draw - Drawing Graphs by Plotting Points Task Line Sketch - Sketching Lines of Graphs from Their Equations (Easiteach) Line Sketch - Sketching Lines of Graphs from Their Equations Task Line, Match and Points - Equations of Graphs and Coordinate Pairs Task Lines Investigation - Coordinates of the Midpoint of a Line Segment Task Make the Connection - Using Direct Proportion Task Plotting Pairs - Generating Co-ordinate Pairs and Plotting Graphs Task Recipe Rewrite - Using Direct Proportion (Easiteach) Reflect It - Naming Equations of Lines Task Shape Draw - A Problem Task Sketching Lines of Graphs from Their Equations Task (y = mx + b) Steeped in Lines - Investigating Linear Graphs Using the General Form Task Student Notes for Algebra - Functions, Mapping Diagrams, Graphs of Linear Functions and Distance-Time Graphs Student Notes for Algebra - Simplifying Expressions, Constructing and Solving Linear Equations, Straight-Line Graphs Table It - Producing Tables of Values on a Graphic Calculator (T1-83 Plus) Table It - Producing Tables of Values using a T1-83 Plus Graphic Calculator Task Under Construction - Forming, Substituting into and Solving Equations Task

		Up To Speed - Using the Formula for Calculating Speed Task Up To Speed - Using the Formula to Calculate and Compare Speeds (Easiteach)
STRAND / STANDARD CATEGORY	MI.A.	Algebra
STANDARD	A.2.	Understand and represent linear functions
GRADE LEVEL EXPECTATION	A.PA.07.06.	Calculate the slope from the graph of a linear function as the ratio of 'rise/run' for a pair of points on the graph, and express the answer as a Copper Experiment - Using Formulas from Science Task Inclined - Investigating Equations of the Line in Straight-Line Graphs (Easiteach) Slope Solutions - Exploring the Slopes of Linear Functions (GSP(R))
GRADE LEVEL EXPECTATION	A.PA.07.07.	Represent linear functions in the form y = x + b, y = mx, and y = mx + b, and graph, interpreting slope and y-intercept. Acting Roles - Distinguishing Roles Played by Letter Symbols (Easiteach) Acting Roles - What Do the Letters Represent? Task Apply It - Solving Problems Using Algebra (Easiteach) Assessment - Equations and Formulas Assessment - Functions, Mapping Diagrams, Graphs of Linear Functions and Distance-Time Graphs Assessment - Simplifying Expressions, Constructing and Solving Linear Equations, Straight-Line Graphs Equation Problems - Construct and Solve Linear Equations (Easiteach) Equation Problems - Construct and Solve Linear Equations Task Family Draw - Blank Answer Sheet for the Discovering Properties of Families Task Family Draw - Discovering Properties of Families of Functions Task Family Plot - Discovering Properties of Families of Functions (TI-83 Plus) Family Plot - Plotting Linear Functions on a Graphic Calculator (TI-83 Plus) Find Four Points on a Line: ax + by = c Worksheet Four points in a Line: y = mx + b Worksheet Function Families - Using the TI-83 Plus to Explore Functions Go for Graphs - Solving Linear Equations by Graphical Methods Task Go for Graphs - Solving Linear Equations by Graphical Methods Task (TI-83 Plus) Go with the Flow - Writing and Solving Equations Task

		Graph Plot - Drawing Straight Line Graphs (Easiteach) Graphic Reality - Interpreting Real-Life Graphs (Easiteach) Graphic Reality - Interpreting Real-Life Graphs Task How do I look? Graphing Inverse Functions Inclined - Investigating Equations of the Line in Straight-Line Graphs (Easiteach) Line Detective - Understanding Properties of Simple Functions Task Line Draw - A Resource Sheet for Drawing Straight Line Graphs Line Draw - Drawing Graphs by Plotting Points Task Line Sketch - Sketching Lines of Graphs from Their Equations (Easiteach) Line Sketch - Sketching Lines of Graphs from Their Equations Task Line, Match and Points - Equations of Graphs and Coordinate Pairs Task Make the Connection - Using Direct Proportion Task Plotting Pairs - Generating Co-ordinate Pairs and Plotting Graphs Task Plotting Points on a Line: y=x+4 Worksheet (4) Reflect It - Naming Equations of Lines Task Shape Draw - A Problem Task Sketching Lines of Graphs from Their Equations Task (y = mx + b) Slope Solutions - Exploring the Slopes of Linear Functions (GSP(R)) Steeped in Lines - Investigating Linear Graphs Using the General Form Task Student Notes for Algebra - Functions, Mapping Diagrams, Graphs of Linear Functions and Distance-Time Graphs Student Notes for Algebra - Simplifying Expressions, Constructing and Solving Linear Equations, Straight-Line Graphs Table It - Producing Tables of Values on a Graphic Calculator (T1-83 Plus) Table It - Producing Tables of Values using a T1-83 Plus Graphic Calculator Task Take a Bath - Interpreting Graphs Task Under Construction - Forming, Substituting into and Solving Equations Task
GRADE LEVEL EXPECTATION	A.FO.07.08.	Find and interpret the x and/or y intercepts of a linear equation or function. Know that the solution to a linear equation of the form ax+b=0 c Assessment - Functions, Mapping Diagrams, Graphs of Linear Functions and Distance-Time Graphs Function Families - Using the TI-83 Plus to Explore Functions Go for Graphs - Solving Linear Equations by Graphical Methods Task Go for Graphs - Solving Linear Equations by Graphical Methods Task (TI-83 Plus) Go with the Flow - Writing and Solving Equations Task

		Inclined - Investigating Equations of the Line in Straight-Line Graphs (Easiteach) Line Draw - A Resource Sheet for Drawing Straight Line Graphs Line Draw - Drawing Graphs by Plotting Points Task Plotting Pairs - Generating Co-ordinate Pairs and Plotting Graphs Task Sketching Lines of Graphs from Their Equations Task (y = mx + b) Steeped in Lines - Investigating Linear Graphs Using the General Form Task Student Notes for Algebra - Functions, Mapping Diagrams, Graphs of Linear Functions and Distance-Time Graphs Student Notes for Algebra - Simplifying Expressions, Constructing and Solving Linear Equations, Straight-Line Graphs
STRAND / STANDARD CATEGORY	**MI.A.**	**Algebra**
STANDARD	**A.3.**	Understand and solve problems about inversely proportional relationships
GRADE LEVEL EXPECTATION	**A.PA.07.09.**	Recognize inversely proportional relationships in contextual situations; know that quantities are inversely proportional if their product is cons the form y = k/x where k is some non-zero number. Directly Proportional - Solving Problems Involving Direct Proportion (TI-83 Plus) Directly Proportional - Solving Problems Involving Direct Proportion Task Inverse Proportion Worksheet (1) Inverse Proportion Worksheet (2) Inverse Proportion Worksheet (3) Keep It in Proportion - Solving Problems Involving Direct Proportion Task Keep it in Proportion - Solving Problems Involving Direct Proportion (Easiteach)
GRADE LEVEL EXPECTATION	**A.RP.07.10.**	Know that the graph of y = k/x is not a line, know its shape, and know that it crosses neither the x nor the y-axis. How do I look? Graphing Inverse Functions Inverse Proportion Worksheet (1) Inverse Proportion Worksheet (2) Inverse Proportion Worksheet (3)
STRAND / STANDARD CATEGORY	**MI.A.**	**Algebra**

STANDARD	A.4.	Apply basic properties of real numbers in algebraic contexts
GRADE LEVEL EXPECTATION	A.PA.07.11.	Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativi Bracket Brains - Multiplying a Single Term Over a Parenthesis (Easiteach) Bracket Brains - Multiplying a Single Term Over a Parenthesis Task Checking Division Using Inverse Operations (Easiteach) Helpful Laws - Using Laws of Arithmetic to Support Mental and Written Calculations Task Inverse Operations Worksheet (1) Laws - Making General Statements from the Laws of Arithmetic (Easiteach) Laws Again - Making General Statements Task Laws Again - Making General Statements from the Laws of Arithmetic (Easiteach) Matching Expressions 3 - Expanding Parentheses Software Matching Expressions 4 - Expanding Parentheses Software Matching Expressions Memory 3 - Expanding Parentheses Software Matching Expressions Memory 4 - Expanding Parentheses Software Mind Map - Algebra Review Task Mind Map - Geometry Review Missing Numbers - Addition, Subtraction, Multiplication and Division of Integers (Easiteach) Missing Numbers - Addition, Subtraction, Multiplication and Division of Integers Task Post the Laws - Remembering the Laws of Arithmetic Task Student Notes for Algebra - Functions, Formulas and Equations Student Notes for Calculations - Fractions, Multiplication, Division, Addition and Subtraction, Order of Operations, Units of T Subtracting with Parentheses (Easiteach) The Distributive Property (Easiteach) The Distributive Property Worksheet (1)
STRAND / STANDARD CATEGORY	MI.A.	Algebra
STANDARD	A.5.	Combine algebraic expressions and solve equations
GRADE LEVEL EXPECTATION	A.FO.07.12.	Add, subtract, and multiply simple algebraic expressions of the first degree, e.g., (92x + 8y) - 5x + y, or x(x+2) and justify using properties of

		Codebreaker 2 - Simplification Software Mind Map - Algebra Review Task Mind Map - Geometry Review Simplifying Algebraic Expressions by Collecting Like Terms (Easiteach)
GRADE LEVEL EXPECTATION	A.FO.07.13.	From applied situations, generate and solve linear equations of the form ax + b = c and ax + b = cx + d, and interpret solutions. Assessment - Equations and Formulas Equation Problems - Construct and Solve Linear Equations (Easiteach) Equation Problems - Construct and Solve Linear Equations Task Make the Connection - Using Direct Proportion Task Under Construction - Forming, Substituting into and Solving Equations Task
STRAND / STANDARD CATEGORY	MI.G.	Geometry
STANDARD	G.1.	Draw and construct geometric objects
GRADE LEVEL EXPECTATION	G.SR.07.01.	Use a ruler and other tools to draw squares, rectangles, triangles, and parallelograms with specified dimensions. Archibold the Architect - Constructing Triangles SAS and ASA Task Assessment - Angle Properties and Constructions Circling Around - Constructing Triangles from Circle Patterns Task Circling Around - Constructing Triangles from Circles (GSP) Circling Around - Constructing Triangles from Circles Investigation (GSP) Circling Around - Helpsheet Circling Around - Making Constructions SSS Task (Easiteach) Circling Around - Understanding a Circle as a Locus (Easiteach) Circling Around - Using Geometer's Sketchpad(R) Answers to Task (GSP) Circling Around 2 - Making Constructions Task Constructing Triangles - ASA (Easiteach) Constructing Triangles - SAS (Easiteach) Exploring Midpoints - Constructing Midpoints and Bisectors Task Find Math Money! - Using Loci in Problem Solving (Easiteach) Find Math Money! - Using Loci to Solve Problems Task

		Mystery Triangles - Constructing Triangles Given the Lengths of Three Sides Polygon Problems - Straight Edge and Compass Constructions (GSP) Polygon Problems - Straight Edge and Compass Constructions Task Rectangle Investigation - Solving Geometrical Problems (GSP) Special Triangle Constructions - Straight Edge and Compass Constructions Task
GRADE LEVEL EXPECTATION	G.SR.07.02.	Use compass and straightedge to perform basic geometric constructions: the perpendicular bisector of a segment, an equilateral triangle, anc A Review of Mathematical Constructions (Easiteach) Archibold the Architect - Constructing Triangles SAS and ASA Task Assessment - Angle Properties and Constructions Assessment - Rectangular Prisms, Coordinates, Constructions and Loci Circling Around - Constructing Triangles from Circle Patterns Task Circling Around - Constructing Triangles from Circles (GSP) Circling Around - Constructing Triangles from Circles Investigation (GSP) Circling Around - Helpsheet Circling Around - Making Constructions SSS Task (Easiteach) Circling Around - Understanding a Circle as a Locus (Easiteach) Circling Around - Using Geometer's Sketchpad(R) Answers to Task (GSP) Circling Around 2 - Making Constructions Task Collect Up - Collecting Like Terms Task Compass Animations - Constructions Using Straight Edge and Compasses Software Compass Animations Software Constructing Triangles - ASA (Easiteach) Constructing Triangles - SAS (Easiteach) Exploring Midpoints - Constructing Midpoints and Bisectors Task Find Math Money! - Using Loci in Problem Solving (Easiteach) Find Math Money! - Using Loci to Solve Problems Task Keep Your Distance - Constructing Perpendicular Bisectors (Easiteach) Live Loci - Constructing Loci (GSP) Locus and Constructions - The Distance From Two Points Task More Constructions - Perpendicular From a Point On a Line and From a Point To a Line (GSP) More Constructions - Perpendicular From a Point On a Line and From a Point To a Line Task

		Mystery Triangles - Constructing Triangles Given the Lengths of Three Sides Navigation Problems - Using Loci Task Polygon Problems - Straight Edge and Compass Constructions (GSP) Polygon Problems - Straight Edge and Compass Constructions Task Special Triangle Constructions - Straight Edge and Compass Constructions Task Step By Step - Constructing Perpendiculars From a Point to a Line and Through a Point on a Line Task Student Notes - Angle Properties of 2-D Shapes and Mathematical Constructions. Student Notes for Geometry - Rectangular Prisms, Coordinates, Constructions and Loci
STRAND / STANDARD CATEGORY	**MI.G.**	**Geometry**
STANDARD	**G.2.**	Understand the concept of similar polygons, and solve related problems
GRADE LEVEL EXPECTATION	**G.TR.07.03.**	Understand that in similar polygons, corresponding angles are congruent and the ratios of corresponding sides are equal; understand the conc Areas of Similar Shapes Worksheet (1). Areas of Similar Shapes Worksheet (2). Areas of Similar Shapes Worksheet (3). Areas of Similar Shapes Worksheet (4). Check with Ratios - Using Ratios to Check for Similarity (GSP) Designing Logos - Dilating 2-D Shapes Task Grow On - Dilation 2-D shapes with Positive Whole-Number Scale Factors Task Grow On - Dilation of 2-D Shapes with Positive, Whole-Number Scale Factors (GSP) Grow on a Grid - Dilating 2-D Shapes Task Grow on a Grid - Dilation of 2-D Shapes with Center (0, 0) (Microsoft(R) Excel) Matching Similar Shapes Worksheet Solving Problems - Similar Triangles (GSP) Solving Problems - Similar Triangles Task Sphinxes - Ratio and Enlargement Task
GRADE LEVEL EXPECTATION	**G.TR.07.04.**	Solve problems about similar figures and scale drawings. Areas of Similar Shapes Worksheet (1).

		Areas of Similar Shapes Worksheet (2). Areas of Similar Shapes Worksheet (3). Areas of Similar Shapes Worksheet (4). Assessment - Rectangular Prisms, Coordinates, Constructions and Loci Check with Ratios - Using Ratios to Check for Similarity (GSP) Cog Wheels - Using Scale Drawings to Solve Problems (GSP) Cog Wheels - Using Scale Drawings to Solve Problems Task Find the Ratios - Solving Problems with Enlargements and Scale Drawing Task Find the Ratios - Solving Problems with Enlargements and Scale Drawing Task (TI-83 Plus) Hide and Seek - Using Bearings Task Maps and Models - Using Ratio (Easiteach) Maps and Models - Using Ratios Task More Cog Wheels - Using Scale Drawings to Solve Problems Task Navigation Problems - Using Loci Task On the Edge - Angle Properties of Polygons Task Planning a Kitchen - Making and Using Scale Drawings Task Power Boat Race - Solving Problems Involving Scale Diagrams Task Scales and Plans - Using Ratio Scales to Solve Problems (Easiteach) Solving Problems - Similar Triangles (GSP) Sphinxes - Ratio and Enlargement Task Student Notes for Geometry - Rectangular Prisms, Coordinates, Constructions and Loci Using Shadows - Using Scale and Ratio to Estimate Heights Task Working With Scale - Using Ratios for Scale Drawing Task
GRADE LEVEL EXPECTATION	G.TR.07.05.	Show that two triangles are similar using the criteria: corresponding angles are congruent (AAA similarity); the ratios of two pairs of correspo are equal (SSS similarity); use these criteria to solve problems and to justify arguments. A Review of Mathematical Constructions (Easiteach) Archibold the Architect - Constructing Triangles SAS and ASA Task Assessment - Angle Properties and Constructions Constructing Triangles - ASA (Easiteach) Constructing Triangles - SAS (Easiteach) Rectangle Investigation - Solving Geometrical Problems (GSP)

		Reflect It - Naming Equations of Lines Task
GRADE LEVEL EXPECTATION	G.TR.07.06.	Understand and use the fact that when two triangles are similar with scale factor of r, their areas are related by a factor of r squared. Areas of Similar Shapes Worksheet (1). Areas of Similar Shapes Worksheet (2). Areas of Similar Shapes Worksheet (3). Areas of Similar Shapes Worksheet (4). Assessment for Geometry - Transformation, Symmetry, Ratio and Proportion Check with Ratios - Using Ratios to Check for Similarity (GSP) Designing Logos - Dilating 2-D Shapes Task Grow On - Dilation 2-D shapes with Positive Whole-Number Scale Factors Task Grow On - Dilation of 2-D Shapes with Positive, Whole-Number Scale Factors (GSP) Grow on a Grid - Dilating 2-D Shapes Task Grow on a Grid - Dilation of 2-D Shapes with Center (0, 0) (Microsoft(R) Excel) Growth - Enlargement of 2-D Shapes (GSP) Growth - Enlarging 2-D Shapes Task Solving Problems - Similar Triangles Task Sphinxes - Ratio and Enlargement Task Student Notes for Geometry - Transformation, Symmetry, Ratio and Proportion Translate to Enlarge - Dilation of 2-D Shapes (GSP) Translate to Enlarge - Dilation of 2-D Shapes Task
STRAND / STANDARD CATEGORY	**MI.D.**	**Data and Probability**
STANDARD	D.1.	Represent and interpret data
GRADE LEVEL EXPECTATION	D.RE.07.01.	Represent and interpret data using circle graphs, stem and leaf plots, histograms, and box-and-whisker plots, and select appropriate represer Assessment - Mean, Median, Mode, Graphs and Diagrams Assessment for Data Analysis and Probability - Collecting, Analyzing and Presenting Data Box-and-Whisker Plot Worksheet (1) Box-and-Whisker Plot Worksheet (2)

		Box-and-Whisker Plot Worksheet (3) Box-and-Whisker Plots (Easiteach) Box-and-Whisker Plots Task Can You Believe It? - Interpreting Graphs (Easiteach) Can You Believe It? Interpreting Graphs Homework Task Darts Manager - Handling Data Software Decisions about Grouping Data - Interpreting Graphs (Easiteach) Decisions about Grouping Data - Interpreting Graphs Task Do You Twig It? - Stem-and-Leaf Diagrams Task Does Group Size Matter? - Experimenting with Grouped Data Task Graph Analyzer - Discussing and Interpreting Graphs Software Graph It - Graphing the Skateboard Park Data as a Circle Graph Task Graph it! - Deciding Which Graph to Use (Easiteach) Half and Half - Analyzing Data from an Experiment Task Illustrating Data - Selecting Suitable Graphs Task Largest Countries - Interpreting Data - Customary Measure (Easiteach) My Results are in Circles - Circle Graphs My Results are in Circles - Circle Graphs (Easiteach) My Results are in Circles - Circle Graphs (GSP) Order-Order - Ordering Decimals (Easiteach) Order-Order - Ordering Decimals Task Place your Bets! - Using the Excel Pinball Activity (Excel) Plotting Bar Charts Task Plotting Bar Graphs Using Excel Sort and Graph - Using the TI-83 Plus to Enter, Sort and Graph Data Sort and Graph - Using the TI-83 Plus to Enter, Sort and Graph Data Stock Market - Interpreting Graphs Software Student Notes for Data Analysis and Probability - Collecting, Analyzing and Presenting Data Student Notes for Data Analysis and Probability- Making a Stem-and-Leaf Diagram Table Graph - Discrete and Continuous Data Using Tables and Graphs Task Table and Graph - Presenting Data from Statistical Enquiries (Easiteach) Travel Agent - Presenting Weather Data in Graphical Format Task Weight for it! - Using a Stem-and-Leaf Diagram (Easiteach) What Do I Do with It? - Analyzing Data (Easiteach)

		What Do I Do with It? - Analyzing Data Task
GRADE LEVEL EXPECTATION	D.AN.07.02.	Create and interpret scatter plots and find line of best fit; use an estimated line of best fit to answer questions about the data. Assessment - Mean, Median, Mode, Graphs and Diagrams Copper Experiment - Using Formulas from Science Task Estimating the Mid-Point - Individual Data Collection Sheet Task Is There a Plot? - Discuss and Interpret Graphs of Real Situations (Easiteach) Making Sub-Groups - Further Analysis of Data Task Mid-Point Estimate - Summarizing Data Task Scatter Plot - Plotting the Data from the Height and Arm Span Activity Task Student Notes for Data Analysis and Probability - Collecting, Analyzing and Presenting Data Table and Graph - Presenting Data from Statistical Enquiries (Easiteach)
STRAND / STANDARD CATEGORY	**MI.D.**	**Data and Probability**
STANDARD	D.2.	Compute statistics about data sets
GRADE LEVEL EXPECTATION	D.AN.07.03.	Calculate and interpret relative frequencies and cumulative frequencies for given data sets. Does It Fit? - Collecting Data from Coin-Spinning Experiments (Excel) Probability with Two Dice Worksheet
GRADE LEVEL EXPECTATION	D.AN.07.04.	Find and interpret the median, quartiles, and interquartile range of a given set of data. Assessment - Mean, Median, Mode, Graphs and Diagrams Assessment for Data Analysis and Probability - Collecting, Analyzing and Presenting Data Box-and-Whisker Plot Worksheet (1) Box-and-Whisker Plot Worksheet (2) Box-and-Whisker Plot Worksheet (3) Box-and-Whisker Plots (Easiteach) Box-and-Whisker Plots Task Collecting Data - Designing a Data Collection Activity (Easiteach) Decisions about Grouping Data - Interpreting Graphs (Easiteach)

		Decisions about Grouping Data - Interpreting Graphs Task Do You Twig It? - Stem-and-Leaf Diagrams Task Estimating the Mid-Point - Individual Data Collection Sheet Task Half and Half - Analyzing Data from an Experiment Task Handy Line Plots (Easiteach) Lightning Reactions - Data Collection Software Making Sub-Groups - Further Analysis of Data Task Mid-Point Estimate - Summarizing Data Task Vital Statistics - Using the TI-83 Plus to Calculate Mean and Median from a List of Data Weight for it! - Using a Stem-and-Leaf Diagram (Easiteach) What Do I Do with It? - Analyzing Data (Easiteach) What Do I Do with It? - Analyzing Data Task

Michigan Curriculum Standards

Mathematics

Grade 8

STRAND / STANDARD CATEGORY	MI.N.	Number and Operations
STANDARD	N.1.	Understand real number concepts
GRADE LEVEL EXPECTATION	N.ME.08.01.	Understand the meaning of a square root of a number and its connection to the square whose area is the number; understand the meaning of Am I Rational or Irrational? (Easiteach) Assessment - Equations, Inequalities, Formulas, Functions, Identities, Trial and Improvement, and Direct Proportion Cube Root Challenge - Finding Cube Roots Using Trial and Improvement (Easiteach) Cube Root Challenge - Finding Cube Roots Using Trial and Improvement Task Dominoes - Squares, Powers and Roots from 1 to 5 Dominoes - Squares, Powers and Roots from 1 to 5 Task Follow On - Using Squares, Cubes, Roots and exponent Notation Task Hit the Target - Applying Mental Skills to Solve Simple Problems (Easiteach) Is It Near Enough? - Using Approximations to Estimate the Answers to Calculations (Easiteach) Listen Up - Solving Number Problems NumCross - Calculating with Mixed Operations (Easiteach)

		NumCross - Calculating with Mixed Operations Task NumCross2 - Calculating with Mixed Operations Task Power Bingo - Using Squares, Roots and Cubes (Easiteach) Powerful Puzzles - Squares, Cubes and Roots (Easiteach) Powers and Roots - Upper and Lower Bounds for Square Roots (Easiteach) Powers, Roots and Fractions - Using the TI-83 Plus Graphic Calculator Root It Out - Finding Roots Using a Decimal Search (TI-83 Plus) Root It Out - Square Numbers Task Rooting Around - Using Function Keys for Finding Roots with a Calculator Task Rooting Around - Using the Roots Function Keys on a TI-83 Plus Graphic Calculator Roots - Finding Square Roots and Cube Roots (GSP(R)) Route to a Root - Finding Square and Cube Roots Using Trial and Improvement Strategies Task Square Numbers and Square Roots (Easiteach) Squares and Cubes - Finding Squares, Square Roots, Cubes and Cube Roots Task Squares and Square Roots - Finding Squares and Square Roots of Numbers (Easiteach) Student Notes for Number and Operations - Estimating, Repeating Decimals, Scientific Notation, Standard Column Addition a What Power - Knowing Squares, Cubes, Roots and Exponent Notation (Easiteach)
GRADE LEVEL EXPECTATION	N.ME.08.03.	Understand that in decimal form, rational numbers either terminate or eventually repeat, and that calculators truncate or round repeating de 0.1...= 1/9 ; 0.3...= 1/3 . And So On - Repeating Decimals Task Assessment - Estimating, Repeating Decimals, scientific notation, Standard Column Addition and Subtraction, Powers and Roo Decimals to Fractions - Repeating Decimals Worksheet Decimals to Fractions - Terminating and Repeating Decimals Worksheet On They Go - Converting Repeating Decimals to Fractions (Easiteach) Repeating Fun - Know That Repeating Decimals Are Exact Fractions (Easiteach) Repeating Fun - Know That Repeating Decimals Are Exact Fractions Task
GRADE LEVEL EXPECTATION	N.ME.08.04.	Understand that irrational numbers are those that cannot be expressed as the quotient of two integers, and cannot be represented by termina root of 3, pi, on the number line.

		Am I Rational or Irrational? (Easiteach) Constructing Tessellations 1 - Explanation of Angle Calculations/Facts (GSP) Even More Irrational Numbers Worksheet Exploring Rational Numbers Worksheet (2) Exploring Rational Numbers Worksheet (3) Exploring Rational numbers Worksheet (1) More Irrational Numbers Worksheet
GRADE LEVEL EXPECTATION	N.FL.08.05.	Estimate and solve problems with square roots and cube roots using calculators. Am I Rational or Irrational? (Easiteach) Assessment - Equations, Inequalities, Formulas, Functions, Identities, Trial and Improvement, and Direct Proportion Assessment - Factors, Powers, Roots, Functions and Graphs Cube Root Challenge - Finding Cube Roots Using Trial and Improvement (Easiteach) Cube Root Challenge - Finding Cube Roots Using Trial and Improvement Task Dominoes - Squares, Powers and Roots from 1 to 5 Dominoes - Squares, Powers and Roots from 1 to 5 Task Follow On - Using Squares, Cubes, Roots and exponent Notation Task Hit the Target - Applying Mental Skills to Solve Simple Problems (Easiteach) Is It Near Enough? - Using Approximations to Estimate the Answers to Calculations (Easiteach) Listen Up - Solving Number Problems NumCross - Calculating with Mixed Operations (Easiteach) NumCross - Calculating with Mixed Operations Task NumCross2 - Calculating with Mixed Operations Task Power Bingo - Using Squares, Roots and Cubes (Easiteach) Powerful Puzzles - Squares, Cubes and Roots (Easiteach) Powers and Roots - Upper and Lower Bounds for Square Roots (Easiteach) Powers, Roots and Fractions - Using the TI-83 Plus Graphic Calculator Root It Out - Finding Roots Using a Decimal Search (TI-83 Plus) Root It Out - Square Numbers Task Rooting Around - Using Function Keys for Finding Roots with a Calculator Task Rooting Around - Using the Roots Function Keys on a TI-83 Plus Graphic Calculator Roots - Finding Square Roots and Cube Roots (GSP(R)) Route to a Root - Finding Square and Cube Roots Using Trial and Improvement Strategies Task

		Square Numbers and Square Roots (Easiteach) Squares and Cubes - Finding Squares, Square Roots, Cubes and Cube Roots Task Squares and Square Roots - Finding Squares and Square Roots of Numbers (Easiteach) Student Notes for Number and Operations - Estimating, Repeating Decimals, Scientific Notation, Standard Column Addition a What Power - Knowing Squares, Cubes, Roots and Exponent Notation (Easiteach)
GRADE LEVEL EXPECTATION	N.FL.08.06.	Find square roots of perfect squares and approximate the square roots of non-perfect squares by locating between consecutive integers, e.g., Am I Rational or Irrational? (Easiteach) Assessment - Factors, Powers, Roots, Functions and Graphs Dominoes - Squares, Powers and Roots from 1 to 5 Dominoes - Squares, Powers and Roots from 1 to 5 Task Follow On - Using Squares, Cubes, Roots and exponent Notation Task Hit the Target - Applying Mental Skills to Solve Simple Problems (Easiteach) Is It Near Enough? - Using Approximations to Estimate the Answers to Calculations (Easiteach) Listen Up - Solving Number Problems NumCross - Calculating with Mixed Operations (Easiteach) NumCross - Calculating with Mixed Operations Task NumCross2 - Calculating with Mixed Operations Task Power Bingo - Using Squares, Roots and Cubes (Easiteach) Powerful Puzzles - Squares, Cubes and Roots (Easiteach) Powers and Roots - Upper and Lower Bounds for Square Roots (Easiteach) Powers, Roots and Fractions - Using the TI-83 Plus Graphic Calculator Root It Out - Finding Roots Using a Decimal Search (TI-83 Plus) Root It Out - Square Numbers Task Rooting Around - Using Function Keys for Finding Roots with a Calculator Task Rooting Around - Using the Roots Function Keys on a TI-83 Plus Graphic Calculator Roots - Finding Square Roots and Cube Roots (GSP(R)) Square Numbers and Square Roots (Easiteach) Squares and Cubes - Finding Squares, Square Roots, Cubes and Cube Roots Task Squares and Square Roots - Finding Squares and Square Roots of Numbers (Easiteach)

		Student Notes for Number and Operations - Estimating, Repeating Decimals, Scientific Notation, Standard Column Addition a What Power - Knowing Squares, Cubes, Roots and Exponent Notation (Easiteach)
STRAND / STANDARD CATEGORY	MI.N.	Number and Operations
STANDARD	N.2.	Solve problems
GRADE LEVEL EXPECTATION	N.MR.08.07.	Understand percent increase and percent decrease in both sum and product form, e.g., 3% increase of a quantity x is x + .03x = 1.03x. Efficient Methods - Percentage Increase and Decrease with a TI-83 Plus (Easiteach) Increase/Decrease - Finding Percentage Changes with a Calculator Task Match the Pairs - Finding Fractions and Percentages of Quantities (Easiteach) Price Tags - Percentage Increase and Decrease (Easiteach) Rise and Fall - Finding Percentage Changes with a Calculator Task Supermarket Offers - Percentage Increase and Decrease (Easiteach) Taxing Problems - Percentage Increase and Decrease (Easiteach) Taxing Problems Using Percents (Easiteach)
GRADE LEVEL EXPECTATION	N.MR.08.08.	Solve problems involving percent increases and decreases. Equation Problems - Construct and Solve Linear Equations (Easiteach) Equation Problems - Construct and Solve Linear Equations Task Jumping to Conclusions - Checking Results Task Magazine Advertisements - Solving Problems with Fractions and Percentages Task Magazine Advertisements - Solving Problems with Fractions and Percentages Task [Notes] Original Price - Finding One Hundred Percent (Easiteach) Original Price - Finding One Hundred Percent Task Price Tags - Percentage Increase and Decrease (Easiteach) Supermarket Offers - Percentage Increase and Decrease (Easiteach) Taxing Problems - Percentage Increase and Decrease (Easiteach) Taxing Problems Using Percents (Easiteach) Who is Right? - Checking Answers Task

GRADE LEVEL EXPECTATION	N.FL.08.09.	Solve problems involving compounded interest or multiple discounts. Efficient Methods - Percentage Increase and Decrease with a TI-83 Plus (Easiteach) I'm Compounded by your Interest (Easiteach) Increase/Decrease - Finding Percentage Changes with a Calculator Task Rise and Fall - Finding Percentage Changes with a Calculator Task Student Notes for Number and Operations - Estimating, Repeating Decimals, Scientific Notation, Standard Column Addition a
GRADE LEVEL EXPECTATION	N.MR.08.10.	Calculate weighted averages such as course grades, consumer price indices, and sports ratings. Play the Game - Finding Probabilities (Easiteach)
GRADE LEVEL EXPECTATION	N.FL.08.11.	Solve problems involving ratio units, such as miles per hour, dollars per pound, or persons per square mile. Area and Volume of Similar Shapes Worksheet (2). Area and Volume of Similar Shapes Worksheet (1). Areas of Similar Shapes Worksheet (1). Areas of Similar Shapes Worksheet (2). Areas of Similar Shapes Worksheet (3). Areas of Similar Shapes Worksheet (4). Assessment - Fractions, Ratio and Proportion, Order of Precedence, Quadratic Sequences and Interpreting Graphs Better Buys - Making Comparisons (Easiteach) Better Buys - Making Comparisons Task Distance/Time Graph Worksheet Find the Ratios - Solving Problems with Enlargements and Scale Drawing Task Find the Ratios - Solving Problems with Enlargements and Scale Drawing Task (TI-83 Plus) Keep It in Proportion - Solving Problems Involving Direct Proportion Task Keep it in Proportion - Solving Problems Involving Direct Proportion (Easiteach) Mix It - Comparing Two Ratios (Easiteach) Mixed Bag - Solving Word Problems (Easiteach) Ocean Areas - Percentage, Ratio and Proportion Task Plot That Journey - Drawing Distance-Time Graphs (Easiteach) Population Problems - Data Set for Percentage, Ratio and Proportion Task

		Population Problems - Data Set for Percentage, Ratio and Proportion Task (Excel) Population Problems - Data Set for Percentage, Ratio and Proportion Task Answers (Excel) - With Formulas. Population Problems - Percentage, Ratio and Proportion Task Population Problems - Percentage, Ratio and Proportion Task (Easiteach) Population Problems - TI-83 Plus Graphic Calculator Helpsheet Ratio Reasoning - Interpreting and Using Ratio Task Recipe Rewrite - Using Direct Proportion (Easiteach) Recipe Rewrite - Using Direct Proportion Task Reverse Digits - Looking for Ratios Between Numbers Task Sense of Proportion - Understanding and Using Proportionality (Easiteach) Show Jumping - Ratios Software Show Jumping - Ratios Software Speedy Animals - Calculating with Metric Units and Time (Easiteach) Student Notes for Number and Algebra - Fractions, Ratio and Proportion, Order of Precedence, Quadratic Sequences and Inte Tanks - Using Metric Units (Easiteach) The Rate is the Thing (Easiteach) Time's Up - Calculating with Units of Time (Easiteach) Tour de Texas - Converting Units (Easiteach) Up To Speed - Using the Formula to Calculate and Compare Speeds (Easiteach) What's The Rate? - Solving Problems Involving Compound Measures of Speed, Density and Pressure (Easiteach) What's the Rate? - Word Problems Task
STRAND / STANDARD CATEGORY	**MI.A.**	**Algebra**
STANDARD	**A.1.**	Understand the concept of non-linear functions using basic examples
GRADE LEVEL EXPECTATION	**A.RP.08.01.**	Identify and represent linear functions, quadratic functions, and other simple functions including inversely proportional relationships (y = k/x graphs, and equations. Acrylic Prices - Discussing and Interpreting Graphs (Easiteach) And Try Again - Solving Equations by Trial and Improvement (TI-83 Plus) And Try Again - Solving Equations by Trial and Improvement Task And Try Again 2 - Solving Equations by Trial and Improvement Task

Assessment - Equations, Inequalities, Formulas, Functions, Identities, Trial and Improvement, and Direct Proportion
Balance Beam Experiment - Generating Graphs of Real Data Task
Equality - Equations, Inequalities, Functions and Formulas (Easiteach)
Equality - Equations, Inequalities, Functions and Formulas Task
Equality 2 - Equations, Inequalities, Functions and Formulas Task
Equation Problems - Construct and Solve Linear Equations (Easiteach)
Equation Problems - Construct and Solve Linear Equations Task
Estimate - Finding an Estimate of the Mean from Grouped Data Task
Finding Out About Graphs - Interpreting Relationships From Sketch Graphs (Easiteach)
Finding Out about Graphs - Interpreting Relationships from Sketch Graphs Task
Formula Two - Considering Formulas and Change of Subject Task
Graph Classifier Software
Graph Plot - Drawing Straight Line Graphs (Easiteach)
Inclined - Investigating Equations of the Line in Straight-Line Graphs (Easiteach)
Inverse Proportion Worksheet (1)
Inverse Proportion Worksheet (2)
Inverse Proportion Worksheet (3)
It's Science Too! - Sketching Linear and Non-Linear Graphs Task
Line Draw - A Resource Sheet for Drawing Straight Line Graphs
Line Draw - Drawing Graphs by Plotting Points Task
Line Sketch - Sketching Lines of Graphs from Their Equations (Easiteach)
Line Sketch - Sketching Lines of Graphs from Their Equations Task
Lines Investigation - Coordinates of the Midpoint of a Line Segment Task
Powers and Roots - Upper and Lower Bounds for Square Roots (Easiteach)
Proportion with Squares and Cubes Worksheet (1)
Proportion with Squares and Cubes Worksheet (2)
Proportion with Squares and Cubes Worksheet (3)
Sense of Proportion - Understanding and Using Proportionality (Easiteach)
Squares and Cubes - Finding Squares, Square Roots, Cubes and Cube Roots Task
Straight to the Point - Equations of Straight Lines (Easiteach)
Straight to the Point - Equations of Straight Lines Task
Systems of Equations Worksheet (1)
Systems of Equations Worksheet (10)
Systems of Equations Worksheet (2)

		Systems of Equations Worksheet (3) Systems of Equations Worksheet (4) Systems of Equations Worksheet (5) Systems of Equations Worksheet (6) Systems of Equations Worksheet (7) Systems of Equations Worksheet (8) Systems of Equations Worksheet (9) The Plot Thickens - Systems of Equations (Easiteach) This and That by Algebra - Systems of Equations (Easiteach) This and That by Algebra - Systems of Equations Task This and That by Graph - Systems of Equations (Easiteach) This and That by Graph - Systems of Equations (GSP) This and That by Graph - Systems of Equations Task Up To Speed - Using the Formula to Calculate and Compare Speeds (Easiteach)
GRADE LEVEL EXPECTATION	A.PA.08.02.	For basic functions, e.g., simple quadratics, direct and indirect variation, and population growth, describe how changes in one variable affect And So On - Investigating Quadratic Sequences (Easiteach) Finding Slopes - Graphs of Linear Functions Inside Out - Resource Sheet Inside Out - An Investigation (Easiteach) Inside Out Again - An Investigation Task Line Plot - Drawing Graphs by Plotting Points (Easiteach) Line Plot - Drawing Graphs by Plotting Points Task Mystery Lines - Describing Straight-Line Graphs (GSP) Mystery Lines - Describing Straight-Line Graphs Task Round the Bend - Graphing Quadratic and Cubic Functions (Easiteach) Slope Solutions - Exploring the Slopes of Linear Functions (GSP(R)) Slope Solutions - Exploring the Slopes of Linear Functions Task Straight to the Point - Equations of Straight Lines (Easiteach) Straight to the Point - Equations of Straight Lines Task Window Panes - Quadratic Sequences Task

GRADE LEVEL EXPECTATION	A.PA.08.03.	Recognize basic functions in problem context, e.g., area of a circle is pi r squared, volume of a sphere is 4/3 pi r cubed, and represent them Assessment - Equations, Inequalities, Formulas, Functions, Identities, Trial and Improvement, and Direct Proportion Assessment - Factors, Powers, Roots, Functions and Graphs Assessment - Sequences, Functions and Graphs Cakes on a Plate - Constructing and Solving Equations Construct and Solve - Writing and Solving Linear Equations Using Different Methods (Easiteach) Create and Solve Equations Using Inverse Machines Worksheet (1) Create and Solve Equations Using Inverse Machines Worksheet (2) Create and Solve Equations of the Form a(b-x)=y Worksheet Create and Solve Equations of the Form a(x+b)=y Worksheet Create and Solve Equations of the Form a(x-b)=y Worksheet Equation Problems - Construct and Solve Linear Equations (Easiteach) Equation Problems - Construct and Solve Linear Equations Task Find the Number - Solving Equations (Easiteach) Food and Money Problems - Forming and Solving Linear Equations Task Keep It in Proportion - Solving Problems Involving Direct Proportion Task Keep Your Balance - Writing and Solving Equations Task Keep it in Proportion - Solving Problems Involving Direct Proportion (Easiteach) Mixed Bag - Solving Word Problems (Easiteach) Solve It - Constructing and Solving Equations (Easiteach) Solve It - Constructing and Solving Equations Task Solve It - Solving Equations Task Sorting Candy - Constructing Linear Equations (Easiteach)
GRADE LEVEL EXPECTATION	A.RP.08.04.	Use the vertical line test to determine if a graph represents a function in one variable. Apply It - Solving Problems Using Algebra (Easiteach) How do I look? Graphing Inverse Functions
STRAND / STANDARD CATEGORY	MI.A.	Algebra

STANDARD	A.2.	Understand and represent quadratic functions
GRADE LEVEL EXPECTATION	A.RP.08.05.	Relate quadratic functions in factored form and vertex form to their graphs, and vice versa; in particular, note that solutions of a quadratic e How do I look? Graphing Inverse Functions Powers and Roots - Upper and Lower Bounds for Square Roots (Easiteach) Root It Out - Finding Roots Using a Decimal Search (TI-83 Plus) Root It Out - Square Numbers Task Round the Bend - Graphing Quadratic and Cubic Functions (Easiteach) Solving Equations Using Graphs Worksheet (1) Solving Equations Using Graphs Worksheet (2) Solving Simple Quadratic Equations (Easiteach) Solving Simple Quadratic Equations Task Sum 17 - Solving Problems in Algebraic and Graphical Form (Easiteach) Sum 17 - Solving Problems in Algebraic and Graphical Form (TI-83 Plus) Sum 17 - Solving Problems in Algebraic and Graphical Form Task Sum 17 Report - Solving Problems in Algebraic and Graphical Form Task Things That Travel - Interpreting Real-Life Graphs Task
GRADE LEVEL EXPECTATION	A.RP.08.06.	Graph factorable quadratic functions, finding where the graph intersects the x-axis and the coordinates of the vertex; use words 'parabola' an 2)squared - 9; y = -x squared; y = -(x - 3)squared. How do I look? Graphing Inverse Functions Powers and Roots - Upper and Lower Bounds for Square Roots (Easiteach) Root It Out - Finding Roots Using a Decimal Search (TI-83 Plus) Root It Out - Square Numbers Task Round the Bend - Graphing Quadratic and Cubic Functions (Easiteach) Solving Equations Using Graphs Worksheet (1) Solving Equations Using Graphs Worksheet (2) Solving Simple Quadratic Equations (Easiteach) Solving Simple Quadratic Equations Task Sum 17 - Solving Problems in Algebraic and Graphical Form (Easiteach) Sum 17 - Solving Problems in Algebraic and Graphical Form (TI-83 Plus) Sum 17 - Solving Problems in Algebraic and Graphical Form Task

		Sum 17 Report - Solving Problems in Algebraic and Graphical Form Task Things That Travel - Interpreting Real-Life Graphs Task
STRAND / STANDARD CATEGORY	MI.A.	Algebra
STANDARD	A.3.	Recognize, represent, and apply common formulas
GRADE LEVEL EXPECTATION	A.FO.08.07.	Recognize and apply the common formulas: (a + b)squared = a squared + 2 ab + b squared; (a - b)squared = a squared - 2 ab + b squared; (a + Difference of Squares - A Worked Example (Easiteach) Recognizing Quadratic Formulas (Easiteach) Recognizing Quadratic Formulas Task
GRADE LEVEL EXPECTATION	A.FO.08.08.	Factor simple quadratic expressions with integer coefficients, e.g., x squared + 6x + 9, x squared + 2x - 3, and x squared - 4; solve simple qua = 15 (by factoring); verify solutions by evaluation. Quadratic Equation Problems (Easiteach) Quadratic Equation Problems Task Solving Equations Using Graphs Worksheet (1) Solving Equations Using Graphs Worksheet (2) Solving Simple Quadratic Equations (Easiteach) Solving Simple Quadratic Equations Task Try, Try, Try Again - Solving Equations by Trial and Improvement (Easiteach) Try, Try, Try Again - Solving Equations by Trial and Improvement Methods Task Try, Try, Try Again - Solving Equations by Trial and Improvement Task Try, Try, Try Again - Using a Spreadsheet for Trial and Improvement (Excel)
GRADE LEVEL EXPECTATION	A.FO.08.09.	Solve applied problems involving simple quadratic equations. Quadratic Equation Problems (Easiteach) Quadratic Equation Problems Task

STRAND / STANDARD CATEGORY	MI.A.	Algebra
STANDARD	A.4.	Understand solutions and solve equations, simultaneous equations, and linear inequalities
GRADE LEVEL EXPECTATION	A.FO.08.10.	Understand that to solve the equation f(x) = g(x) means to find all values of x for which the equation is true, e.g., determine whether a given a solution). Solving Simple Quadratic Equations (Easiteach) Solving Simple Quadratic Equations Task
GRADE LEVEL EXPECTATION	A.FO.08.11.	Solve simultaneous linear equations in two variables by graphing, by substitution, and by linear combination; estimate solutions using graphs; Assessment - Factorizing and Simplifying Expressions, Adding Algebraic Fractions, Deriving and Using Formulas and Finding th Systems of Equations Worksheet (1) Systems of Equations Worksheet (10) Systems of Equations Worksheet (2) Systems of Equations Worksheet (3) Systems of Equations Worksheet (4) Systems of Equations Worksheet (5) Systems of Equations Worksheet (6) Systems of Equations Worksheet (7) Systems of Equations Worksheet (8) Systems of Equations Worksheet (9) The Plot Thickens - Systems of Equations (Easiteach) This and That by Algebra - Systems of Equations (Easiteach) This and That by Algebra - Systems of Equations Task This and That by Graph - Systems of Equations (Easiteach) This and That by Graph - Systems of Equations (GSP) This and That by Graph - Systems of Equations Task
GRADE LEVEL EXPECTATION	A.FO.08.12.	Solve linear inequalities in one and two variables, and graph the solution sets. Equality - Equations, Inequalities, Functions and Formulas (Easiteach)

		Equality - Equations, Inequalities, Functions and Formulas Task Equality 2 - Equations, Inequalities, Functions and Formulas Task Satisfying Inequalities Worksheet (1) Satisfying Inequalities Worksheet (2) Satisfying Inequalities Worksheet (3) Satisfying Inequalities Worksheet (4) Satisfying Inequalities Worksheet (5) Satisfying Inequalities Worksheet (6) Satisfying Inequalities Worksheet (7) Solving Inequalities Using a Number Line (Easiteach) Solving Inequalities Worksheet (1) Solving Inequalities Worksheet (2) Solving Inequalities Worksheet (3) Solving Inequalities Worksheet (4)
GRADE LEVEL EXPECTATION	A.FO.08.13.	Set up and solve applied problems involving simultaneous linear equations and linear inequalities. Systems of Equations Worksheet (1) Systems of Equations Worksheet (10) Systems of Equations Worksheet (2) Systems of Equations Worksheet (3) Systems of Equations Worksheet (4) Systems of Equations Worksheet (5) Systems of Equations Worksheet (6) Systems of Equations Worksheet (7) Systems of Equations Worksheet (8) Systems of Equations Worksheet (9) The Plot Thickens - Systems of Equations (Easiteach) This and That by Algebra - Systems of Equations (Easiteach) This and That by Algebra - Systems of Equations Task This and That by Graph - Systems of Equations (Easiteach) This and That by Graph - Systems of Equations (GSP) This and That by Graph - Systems of Equations Task

STRAND / STANDARD CATEGORY	MI.G.	Geometry
STANDARD	G.1.	Understand and use the Pythagorean Theorem
GRADE LEVEL EXPECTATION	G.GS.08.01.	Understand at least one proof of the Pythagorean Theorem; use the Pythagorean Theorem and its converse to solve applied problems includin Difference of Squares - A Worked Example (Easiteach) Divide and Rule - Dividing Line Segments in a Given Ratio (GSP). Investigating the Pythagorean Theorem (GSP) Investigating the Pythagorean Theorem Task Sum of those Sides - A Problem-Solving Task The Distance between Two Points (Easiteach) The Pythagorean Theorem - 2D Problems Worksheet (1) The Pythagorean Theorem - 2D Problems Worksheet (2) The Pythagorean Theorem - 2D Problems Worksheet (3) The Pythagorean Theorem - 3D Problems Worksheet (1) The Pythagorean Theorem - 3D Problems Worksheet (2) The Pythagorean Theorem - 3D Problems Worksheet (3) The Pythagorean Theorem - 3D Problems Worksheet (4) The Pythagorean Theorem - Finding the 3rd Side Worksheet The Pythagorean Theorem - Finding the Third Side Worksheet (1) The Pythagorean Theorem - Finding the Third Side Worksheet (2) The Pythagorean Theorem - Finding the Third Side Worksheet (3) The Pythagorean Theorem - Finding the Third Side Worksheet (4) The Pythagorean Theorem in 3D Worksheet (1) The Pythagorean Theorem in 3D Worksheet (2) Tilted Squares - An Investigation Leading to The Pythagorean Theorem (Easiteach)
GRADE LEVEL EXPECTATION	G.LO.08.02.	Find the distance between two points on the coordinate plane using the distance formula; recognize that the distance formula is an applicatio The Distance between Two Points (Easiteach)

STRAND / STANDARD CATEGORY	MI.G.	Geometry
STANDARD	G.2.	Solve problems about geometric figures
GRADE LEVEL EXPECTATION	G.SR.08.03.	Understand the definition of a circle; know and use the formulas for circumference and area of a circle to solve problems. A Slice of the Action - Lengths of Arcs and Areas of Sectors of Circles (GSP) Assessment - Estimating, Repeating Decimals, scientific notation, Standard Column Addition and Subtraction, Powers and Roo Circle Fun - Discovering Pi (GSP) Circular Areas - Finding Areas of Circles Task Finding the Surface Area and Volume of Prisms (Easiteach) Finding the Volume of Cylinders and Spheres (Easiteach) Finding the Volume of Cylinders and Spheres Task Finding the Volume of Cylinders and Spheres (GSP) Jumping to Conclusions - Checking Results Task Measurement - Circle Definitions Shaded - Finding the Areas of Circles (Easiteach) Shaded - Finding the Ares of Circles Task Student Notes for Number and Operations - Estimating, Repeating Decimals, Scientific Notation, Standard Column Addition a Table Space - Finding the Areas of Circles Task Track Refit - Strategies for Finding the Areas of Circles and Rectangles (Easiteach) What Makes a Circle a Circle? - Circle Definitions (GSP) What's My Surface? Surface Area of a Cylinder (Easiteach) What's my surface? Surface Area of a Cylinder What's my surface? Surface Area of a Cylinder (GSP) Who is Right? - Checking Answers Task
GRADE LEVEL EXPECTATION	G.SR.08.04.	Find area and perimeter of complex figures by sub-dividing them into basic shapes (quadrilaterals, triangles, circles). Area and Perimeter Tool - A Review of Area of a Rectangle Software (Customary) Assessment - Measurements, Pi and Prisms Decorate - Calculate and Convert between Metric Units Task

		Investigating the Pythagorean Theorem (GSP) Investigating the Pythagorean Theorem Task Measure For Measure - Converting Between Different Units of Measurement Task Paths - A Volume Problem Task Prism Full - Calculating Volumes of Right Prisms Task Prism Full - Finding the Volume Right Prisms (Easiteach) Quadratic Equation Problems (Easiteach) Quadratic Equation Problems Task Shaded - Finding the Areas of Circles (Easiteach) Shaded - Finding the Ares of Circles Task Sum of Parts - A Problem-Solving Activity (Easiteach) Sum of Parts - A Problem-Solving Task Sum of Parts Again - A Problem-Solving Task Sum of those Sides - A Problem-Solving Task Tilted Squares - An Investigation Leading to The Pythagorean Theorem (Easiteach) Track Refit - Strategies for Finding the Areas of Circles and Rectangles (Easiteach)
GRADE LEVEL EXPECTATION	G.SR.08.05.	Solve applied problems involving areas of triangles, quadrilaterals, and circles. Circular Areas - Finding Areas of Circles Task Decorate - Calculate and Convert between Metric Units Task Grass It - Solving Problems Using Proportional Reasoning Task Keep Your Balance - Writing and Solving Equations Task Ponds Investigation - Sequences From Practical Contexts (Easiteach) Table Space - Finding the Areas of Circles Task
STRAND / STANDARD CATEGORY	MI.G.	Geometry
STANDARD	G.3.	Understand concepts of volume and surface area, and apply formulas
GRADE LEVEL EXPECTATION	G.SR.08.06.	Know the volume formulas for generalized cylinders ((area of base) x height), generalized cones and pyramids (1/3 (area of base) x height), a Finding the Surface Area and Volume of Prisms (Easiteach)

		Finding the Volume of Cylinders and Spheres (Easiteach) Finding the Volume of Cylinders and Spheres Task Finding the Volume of Cylinders and Spheres (GSP) Missing - Finding the Third Dimension of 3-D Shapes (Easiteach) Tanks - Using Metric Units (Easiteach) Volume of a Pyramid or Cone (Easiteach)
GRADE LEVEL EXPECTATION	G.SR.08.07.	Understand the concept of surface area, and find the surface area of prisms, cones, spheres, pyramids, and cylinders. Assessment - Measurements, Pi and Prisms Customary Containers - Volume of Rectangular Prisms (Easiteach) Decorating a Room - Surface Area of Rectangular Prisms Task Finding the Surface Area and Volume of Prisms (Easiteach) Millions - Volumes of Rectangular Prisms (Easiteach) Millions - Volumes of Rectangular Prisms Task Misleading - Using Percentages to Solve Problems Task Paint It - Calculating the Surface Areas of Prisms Task Paint It - Calculating the Surface Areas of Right Prisms (Easiteach) Splash Time! - Finding Area of Tiled Surfaces (Easiteach) Student Notes - Measurements, Pi and Prisms Tanks - Using Metric Units (Easiteach) Volume of a Prism Worksheet (1) Volume of a Prism Worksheet (2) Volume of a Prism Worksheet (3) Volume of a Prism Worksheet (4) Volume of a Prism Worksheet (5) What's My Surface? Surface Area of a Cylinder (Easiteach) What's my surface? Surface Area of a Cylinder What's my surface? Surface Area of a Cylinder (GSP)
STRAND / STANDARD CATEGORY	MI.G.	Geometry
STANDARD	G.4.	Visualize solids

GRADE LEVEL EXPECTATION	G.SR.08.08.	Sketch a variety of two-dimensional representations of three-dimensional solids including orthogonal views (top, front, and side), picture view

3-D Shape Explorer - Surface Area of Rectangular Prisms Software
3D Shape Builder Software
Box Clever - Investigating the Nets of an Open Cube (Easiteach)
Conservatories - Overhead, Front and Side Views
Cube It - Planes of Symmetry of a Cube Task
Customary Containers - Volume of Rectangular Prisms (Easiteach)
Design Studio - Views (Easiteach)
Designing Chocolate Boxes - Constructions Using a Ruler and Protractor Task
Different Prisms - Finding the Shape of a Right Prism Task
Drawing in 3D with GSP - 2-D Representations of 3-D Shapes
Drawing in 3D with GSP - 2-D Representations of 3-D Shapes Task
Find Math Money! - Using Loci in Problem Solving (Easiteach)
Finding Equations of Straight Line Graphs using TI-83 Plus
Liters - Containers with a Volume of 1,000cm3 Task
More Plotting Functions - Generating Coordinate Pairs that Satisfy a Linear Rule (Easiteach)
Networks and Regions - Deriving Formula (Easiteach)
Networks and Regions - Deriving Formula Task
Solid Guess - Visualizing and Describing 3-D Shapes (Easiteach)
Solid Halves - Reflection Symmetry in Three Dimensions (Easiteach)
Solid Halves - Reflection Symmetry in Three Dimensions Task
Solid Shadows - Views Task
Solid Symmetry - Planes of Symmetry Task
Unfolding Prism Nets Animation (Curved Shape)
Unfolding Prism Nets Animation (L Shape)
Unfolding Prism Nets Animation (T Shape)
Unfolding a Cylinder (Animation)
Unfolding a Rectangular Prism - W Shape (Animation)
What a View - Using Overhead, Side and Front Views (Easiteach)
What's My Surface? Surface Area of a Cylinder (Easiteach)
What's my surface? Surface Area of a Cylinder
What's my surface? Surface Area of a Cylinder (GSP)

		Which Model - Visualizing Plans and Elevations from 3D Models (Easiteach) Whose View? - Views Task
STRAND / STANDARD CATEGORY	MI.G.	Geometry
STANDARD	G.5.	Understand and apply concepts of transformation and symmetry
GRADE LEVEL EXPECTATION	G.TR.08.09.	Understand the definition of a dilation from a point in the plane, and relate it to the definition of similar polygons. Grow On - Dilation 2-D shapes with Positive Whole-Number Scale Factors Task Grow On - Dilation of 2-D Shapes with Positive, Whole-Number Scale Factors (GSP) Grow on a Grid - Dilating 2-D Shapes Task Grow on a Grid - Dilation of 2-D Shapes with Center (0, 0) (Microsoft(R) Excel) Growth - Enlargement of 2-D Shapes (GSP) Growth - Enlarging 2-D Shapes Task Little and Large - Enlargement of 2-D Shapes Task Transform - Combined Transformations (GSP) Transform - Combined Transformations Task Use Enlargements - Solving Problems Using Scale Drawing and Dilation (GSP) Use Enlargements - Solving Problems with Scale Drawing and Enlargements Task
GRADE LEVEL EXPECTATION	G.TR.08.10.	Understand and use reflective and rotational symmetries of two-dimensional shapes and relate them to transformations to solve problems. Kaleidoscope - Orders of Rotational Symmetry (GSP) Lines of Symmetry (Easiteach) Lines of Symmetry Task Mirror Writing - Vocabulary for Reflections, Translations and Rotations (GSP) Mirror Writing - Vocabulary for Reflections, Translations and Rotations Task Mirror Writing Two Mirrors - Vocabulary for Reflections, Translations and Rotations (GSP) Moving Shapes - Visualizing 2-D Shapes (GSP) Polygon Rotation Patterns - Orders of Rotational Symmetry Task Rotating Polygons 1 - Orders of Rotational Symmetry (GSP) The Shape's the Same - Congruence (GSP) Transformations 1 - Translations (Easiteach)

STRAND / STANDARD CATEGORY	MI.D.	Data and Probability
STANDARD	D.1.	Draw, explain, and justify conclusions based on data
GRADE LEVEL EXPECTATION	D.AN.08.01.	Determine which measure of central tendency (mean, median, mode) best represents a data set, e.g., salaries, home prices, for answering ce A Question of Age - Comparing Population Pyramids Resource Sheet Age Summary - Comparing Population Data Task Compare - Comparing Distributions Task Finding the Mean of a Small Set of Numbers (Easiteach) Finding the Median of a Number of Items (Easiteach) Finding the Mode of a Small Set of Data (Easiteach) Finding the Range of a Set of Numbers 1 (Easiteach) Finding the Range of a Set of Numbers 2 (Easiteach) How Do They Compare? - Population Distributions Through Age Pyramids (Easiteach) Lightning Reactions - Data Collection Software Use the Data - Data Tables and Hypotheses (Easiteach) Using the Range - Calculating and Interpreting the Range (Easiteach) Which Average - Medians and Quartiles of Grouped Data (Easiteach) Why Use the Range? - Comparing Distributions (Easiteach)
GRADE LEVEL EXPECTATION	D.AN.08.02.	Recognize practices of collecting and displaying data that may bias the presentation or analysis. Be Critical - Interpreting Graphs Task Can You Believe It? - Interpreting Graphs (Easiteach) Can You Believe It? Interpreting Graphs Homework Task Comparing Methods of Data Collection (Easiteach) Find the Bias - Investigating Bias in Surveys and Minimizing Its Effects (Easiteach) First Impressions - Recognizing Misleading Graphs (Easiteach) Graph Analyzer - Discussing and Interpreting Graphs Software Interpreting Data - Data Tables and Graphs Task Let's Take a Sample - Sample Surveys (Easiteach)

		Lightning Reactions - Data Collection Software Misleading - Using Percentages to Solve Problems Task Probably Easy? - Solving Probability Problems Task Spinners and Beads - Finding Probabilities (Easiteach)
STRAND / STANDARD CATEGORY	**MI.D.**	**Data and Probability**
STANDARD	**D.2.**	Understand probability concepts for simple and compound events
GRADE LEVEL EXPECTATION	**D.PR.08.03.**	Compute relative frequencies from a table of experimental results for a repeated event. Interpret the results using relationship of probability Assessment - Data Analysis and Probability Assessment for Data Analysis and Probability - Graphs, Correlation and Averages Fine Swine - Cumulative Frequency Task Heaping it Up - Cumulative Frequency (Easiteach) Heaps of Leaves - Cumulative Frequency Task Histogram Worksheet (1) Histogram Worksheet (2) Histogram Worksheet (3) Histogram Worksheet (4) Histogram Worksheet (5) Histogram Worksheet (6) Histogram Worksheet (7) Histogram Worksheet (8) In a Spin - Experimental Data from Spinning Coins Task In a Spin - Obtaining Experimental and Theoretical Data for Two Pentagonal Spinners (Easiteach) In a Spin - Theoretical and Experimental Data Task In a Spin! - Collecting Data on Throwing Push Pins Task In the Long Run - Examining the Idea of a Limit (Easiteach) Probability with Two Dice Worksheet Relative Values - Using Relative Frequency in Experiments (Easiteach) Student Notes for Data Analysis and Probability Student Notes for Data Analysis and Probability - Describing and Comparing Distributions Student Notes for the Laws and Types of Probability and Probability Diagrams

		Table Wise - Understanding and Analyzing Data Tables Task Table to Graph - Comparing Graphs of Height and Frequency Task What a Difference - Analyzing Experimental Data Task Which is Bigger? - Experimental Data Analyzed Task
GRADE LEVEL EXPECTATION	D.PR.08.04.	Apply the Basic Counting Principle to find total number of outcomes possible for independent and dependent events, and calculate the probal Adds to One - Solving Probability Problems (Easiteach) Assessment - Laws and Types of Probability and Probability Diagrams Assessment - Probability Dicing with Numbers - Identifying All Possible Outcomes (Easiteach) Dicing with Numbers - Identifying All Possible Outcomes Task Don't Be Half-Hearted - Methods of Calculating with Fractions Task Don't Be Half-Hearted - Methods of Calculating with Fractions Task Fractions Are Fun (Probably!) - Adding and Multiplying Fractions in Probability Situations (Easiteach) Fractions Are Fun (Probably!) - Adding and Multiplying Fractions in Probability Situations Task Fundraising Fun - Using Probability to Play Games (Easiteach) How Many Ways? Combinations and Permutations (Easiteach) It's Exhausting - Identifying All Outcomes Task Pick and Mix Family - Identifying Outcomes (Easiteach) Probability Trees - Traffic Problem Worksheet (1) Probability Trees - Traffic Problem Worksheet (2) Probability Trees with Coins Worksheet (1) Probably Easy? - Solving Probability Problems Task Student Notes for Data Analysis and Probability - Probability Student Notes for the Laws and Types of Probability and Probability Diagrams Sweet Talk - Working out Missing Probabilities Task Taking a Chance - Using Excel Simulation of Spinning Three Coins (Microsoft(R) Excel) The Tree of Knowledge - Aids to Calculating Probabilities Task What's Happening? - Recording Outcomes for Probability in a Systematic Way (Easiteach)
GRADE LEVEL EXPECTATION	D.PR.08.05.	Find and/or compare the theoretical probability, the experimental probability, and/or the relative frequency of a given event.

A Question of Odds - Finding Probabilities Task
Adds to One - Solving Probability Problems (Easiteach)
Assessment - Laws and Types of Probability and Probability Diagrams
Assessment - Data Analysis and Probability
Assessment - Probability
Assessment for Data Analysis and Probability - Graphs, Correlation and Averages
Chance It - Solving Simple Probability Problems (Easiteach)
Dicing with Numbers - Identifying All Possible Outcomes (Easiteach)
Dicing with Numbers - Identifying All Possible Outcomes Task
Fine Swine - Cumulative Frequency Task
Fundraising Fun - Using Probability to Play Games (Easiteach)
Funny Die - Comparing Theoretical Frequencies with Experimental Data Samples Task
Happy Families Probability Problem - Listing Possible Outcomes (Easiteach)
Heaping it Up - Cumulative Frequency (Easiteach)
Heaps of Leaves - Cumulative Frequency Task
Histogram Worksheet (1)
Histogram Worksheet (2)
Histogram Worksheet (3)
Histogram Worksheet (4)
Histogram Worksheet (5)
Histogram Worksheet (6)
Histogram Worksheet (7)
Histogram Worksheet (8)
In All Probability - Laws of Probability Task
In a Spin - Experimental Data from Spinning Coins Task
In a Spin - Obtaining Experimental and Theoretical Data for Two Pentagonal Spinners (Easiteach)
In a Spin - Theoretical and Experimental Data Task
In a Spin! - Collecting Data on Throwing Push Pins Task
In the Long Run - Examining the Idea of a Limit (Easiteach)
It's Exhausting - Identifying All Outcomes Task
Play the Game - Finding Probabilities (Easiteach)
Play the Game! - Probability of Chance Task
Probability - Independent Events Worksheet
Probability Rules Worksheet

		Probability Trees - Traffic Problem Worksheet (1) Probability Trees - Traffic Problem Worksheet (2) Probability Trees with Coins Worksheet (1) Probability with Two Dice Worksheet Probably Easy? - Solving Probability Problems Task Relative Values - Using Relative Frequency in Experiments (Easiteach) Simulating Throwing 3 Dice - Using the TI-83 Plus Graphic Calculator Spinners and Beads - Finding Probabilities (Easiteach) Student Notes for Data Analysis and Probability Student Notes for Data Analysis and Probability - Describing and Comparing Distributions Student Notes for Data Analysis and Probability - Probability Student Notes for the Laws and Types of Probability and Probability Diagrams Table Wise - Understanding and Analyzing Data Tables Task Table to Graph - Comparing Graphs of Height and Frequency Task Taking a Chance - Using Excel Simulation of Spinning Three Coins (Microsoft(R) Excel) Think Big! - Collecting Data from a Calculator Simulation of Throwing a Die (TI-83 Plus) Think Big! - Collecting Data on Large Samples of Dice Spinning (Easiteach) Think Big! - Large Samples for Throwing a Fair Die (TI-83 Plus) Think Big! - Large Samples for Throwing a Fair Die by using a Database Task What a Difference - Analyzing Experimental Data Task What a Funny Die! - Constructing a Tetrahedral Die and Using It Task What a Funny Die! - Samples from a Tetrahedral Die (Easiteach) What's Happening? - Recording Outcomes for Probability in a Systematic Way (Easiteach) What's The Probability an Event Not Happening Worksheet Which is Bigger? - Experimental Data Analyzed Task
GRADE LEVEL EXPECTATION	D.PR.08.06.	Understand the difference between independent and dependent events, and recognize common misconceptions involving probability, e.g., Al previous roll. Pick and Mix Family - Identifying Outcomes (Easiteach) Probability - Independent Events Worksheet Probability Events Worksheet Sort It - Using the Laws of Probability (Easiteach) Student Notes for Data Analysis and Probability - Probability

addition and subtraction.

te sides and at equal distance from 0 on a number line.

fraction.

(x + 1).'

.g., given c chairs, the 'leg function' is 4c; if you have 5 chairs, how many legs?; if you have 12 legs, how many

relationship for a square, distance-time graphs, and conversions such as feet to inches.

utions.

interpret the results.

entary angles, supplementary angles; congruence of corresponding and alternate interior angles when parallel lines
erty that an exterior angle of a triangle is equal to the sum of the remote (opposite) interior angles; know that the

ngs

blems.

ngs

ormally.

probability 1 means an event will occur.

y listing all possibilities and finding the fraction that meets given conditions.

d; know how to see patterns about proportional situations in tables.

presentations.

ıte y = mx + b for specific x values, e.g., weight vs. volume of water, base cost plus cost per unit.

with uniform cross-section; height of water in a tank being filled at a constant rate; degrees Celsius and degrees

on-zero; understand that in a directly proportional relationship between two quantities one quantity is a constant

fraction and a decimal; understand that linear functions have slope that is a constant rate of change.

corresponds to the point at which the graph of y=ax+b crosses the x axis.

tant, e.g., the length and width of a rectangle with fixed area, and that an inversely proportional relationship is of

ity, associativity, and the distributive property of multiplication over addition.

ime

real numbers.

d the bisector of an angle; understand informal justifications.

epts of similar figures and scale factor.

nding sides are equal and the included angles are congruent (SAS similarity); ratios of all pairs of corresponding sides

ntation to address specific questions.

a cube root and its connection to the volume of a cube.

nd Subtraction, Powers and Roots, and Pi

ecimals; locate rational numbers on the number line; know fraction forms of common repeating decimals, e.g.,

ots, and Pi

ating or repeating decimals; approximate the position of familiar irrational numbers, e.g., square root of 2, square

nd Subtraction, Powers and Roots, and Pi

, square root of 130 is between 11 and 12.

nd Subtraction, Powers and Roots, and Pi

nd Subtraction, Powers and Roots, and Pi

erpreting Graphs

); cubics (y = ax cubed); roots (y = square root of x); and exponentials (y = a to the x power, a > 0); using tables,

t the others.

using tables, graphs, and formulas.

equation are the x-intercepts of the corresponding quadratic function.

d 'roots'; include functions in vertex form and those with leading coefficient -1, e.g., y = x squared - 36, y = (x -

b) (a - b) = a squared - b squared ; represent geometrically.

dratic equations, e.g., x squared = 16 or x squared = 5 (by taking square roots); x squared - x - 6 = 0, x squared - 2x

value, or values from a given set, is a solution of an equation (0 is a solution of 3x squared + 2 = 4x + 2, but 1 is not

include examples with no solutions and infinitely many solutions.

e Slope of Linear Functions

g perimeter, area, and volume problems.

on of the Pythagorean Theorem.

ots, and Pi

nd Subtraction, Powers and Roots, and Pi

nd spheres (4/3 pi (radius) cubed) and apply them to solve problems.

vs (projective or isometric), and nets; use such two-dimensional representations to help solve problems.

ertain questions; justify the choice made.

to relative frequency.

bilities using organized lists or tree diagrams.

ice rolls a 6 on a die three times in a row; she is just as likely to roll a 6 on the fourth roll as she was on any