

MATH FOR COLLEGE READINESS

Course Description

This course is designed to lead students through arithmetic, from a multiple representations approach, and to develop a deep understanding of the concepts associated with number and operations in preparation for math in college. The course will cover place value, integers, order of operations, fractions, decimals, percents, measurements, perimeter, area, volume, and the Pythagorean Theorem.

Prerequisite

None

Credit Requirement Area

Math

Learning Objectives

- Students will write numbers in place value, extended form, and word form.
- Students will identify place values for large numbers.
- Students will add, subtract, multiply, and divide whole numbers through application problems.
- Students will use algorithms to add, subtract, multiply, and divide integers.
- Students will use PEMDAS to evaluate expression.
- Students will apply the commutative property of addition and multiplication.
- Students will determine what operations have the associative property.
- Students will use the associative property to evaluate expressions in multiple ways.
- Students will use the distributive property in context and to evaluate expressions.
- Students will use additive identities and inverses with addition and subtraction problems.
- Students will use multiplicative identities, inverses, and the zero property with multiplication and division problems.
- Students will determine if a number is a factor of another number.
- Students will determine if a number is divisible by another number.
- Students will determine if a number is prime or composite.
- Students will represent fractions, improper fractions, and mixed numbers in multiple ways.
- Students will compare and order fractions.
- Students will add, subtract, multiply, and divide fractions.
- Students will write a fraction in decimal form, expanded form, and using the word name.
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- Students will compare, order, and round decimals.
- Students will convert fractions to decimals and decimals to fractions.
- Students will add, subtract, multiply, and divide decimals.
- Students will represent ratios in multiple ways.
- Students will use algorithms to change forms between decimals, fractions, and percents.
- Students will convert between U.S. and metric systems.
- Students will find the perimeters, areas, and volumes of various shapes.
- Students will apply the Pythagorean Theorem to find a missing side of a right triangle or solve an application problem.

Suggested Weekly Schedule

Week	Graded Activities	Suggested Due Date	% Points
1	Lesson 1 Media Lesson Videos	Monday of Week 1	11%
	Lesson 1 Test - Place Value and Whole Numbers	Tuesday of Week 1	37%
	Lesson 2 Media Lesson Videos	Thursday of Week 1	15%
	Lesson 2 Test - Integers	Friday of Week 1	37%
Week 1 Total Percentage Towards Final Grade			16.6%
2	Lesson 3 Media Lesson Videos	Monday of Week 2	16%
	Lesson 3 Test - Order of Operations and Properties	Tuesday of Week 2	38%
	Lesson 4 Media Lesson Videos	Thursday of Week 2	8%
	Lesson 4 Test - Divisibility, Factors, and Multiples	Friday of Week 2	38%
Week 2 Total Percentage Towards Final Grade			16.6%
3	Lesson 5 Media Lesson Videos	Monday of Week 3	14%
	Lesson 5 Test - Introduction to Fractions	Tuesday of Week 3	36%
	Lesson 6 Media Lesson Videos	Thursday of Week 3	14%
	Lesson 6 Test - Fraction Operations	Friday of Week 3	36%
Week 3 Total Percentage Towards Final Grade			16.6%
4	Lesson 7 Media Lesson Videos	Monday of Week 4	9%
	Lesson 7 Test - Introduction to Decimals	Monday of Week 4	26%
	Lesson 8 Media Lesson Videos	Wednesday of Week 4	4%
	Lesson 8 Test - Connecting Fractions and Decimals	Wednesday of Week 4	26%
	Lesson 9 Media Lesson Videos	Friday of Week 4	9%
	Lesson 9 Test - Decimal Operations	Friday of Week 4	26%
Week 4 Total Percentage Towards Final Grade			16.6%
5	Lesson 10 Media Lesson Videos	Monday of Week 5	10%

Week	Graded Activities	Suggested Due Date	% Points
	Lesson 10 Test - Multiplicative and Proportional Reasoning	Tuesday of Week 5	39%
	Lesson 11 Media Lesson Videos	Thursday of Week 5	12%
	Lesson 11 Test - Percents	Friday of Week 5	39%
Week 5 Total Percentage Towards Final Grade			16.6%
6	Lesson 12 Media Lesson Videos	Monday of Week 6	6%
	Lesson 12 Test - Systems of Measure and Unit Conversions	Monday of Week 6	28%
	Lesson 13 Media Lesson Videos	Wednesday of Week 6	7%
	Lesson 13 Test - Perimeter and Area	Wednesday of Week 6	28%
	Lesson 14 Media Lesson Videos	Friday of Week 6	3%
	Lesson 14 Test - Volume and The Pythagorean Theorem	Friday of Week 6	28%
Week 6 Total Percentage Towards Final Grade			17%
WEIGHTED TOTAL			100%