SUBJECT: Pre-Algebra
COURSE SYLLABUS

GRADE LEVEL: **7th-Grade**   **SCHOOL YEAR**: **2023/2024**

TEACHER: Ms. Victoria Santiago/Mr. Simon Jatta   **MAIL**: **vsantiago@dishs.tp.edu.tw/**

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COURSE DESCRIPTION:

Beginning Algebra Mathematics is intended to review concepts that are important for students to learn Algebra. The students will learn to do basic operations with numbers in different forms (e.g., fractions, decimals, percentages). In addition, the students will learn basic problem-solving techniques crucial for critical thinking. The course will follow the Common Core State Standards (CCSS).

COURSE OBJECTIVES:

Ratios and Proportional Relationships

• Analyze proportional relationships and use them to solve real world and mathematical problems.

The Number System

• Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

Expressions and Equations

• Use properties of operations to generate equivalent expressions.

• Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

Geometry

• Understand and apply the Pythagorean Theorem.

ASSESSMENT:

Pop Quizzes will be conducted unannounced.
Students will be given a quiz after the completion of every chapter.
Quarter exam will be conducted at the end of each quarter.
Homework, Seatwork, and Group work, will also be assessed.

This course will be assessed on the following four categories:

- Tests and Quizzes = 30%

- Seatwork, Homework and Participation = 30%

- Quarter Examination = 30%

- Deportment = 10%

PRIMARY TEXTBOOK & OTHER RESOURCES

Beginning Algebra Grade 7 Mathematics by John Tobey et al.
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https://quizizz.com

ADDITIONAL INFORMATION

Academic Dishonesty means employing a method or technique or engaging in conduct in an academic endeavor that contravenes the standards of ethical integrity expected at DIS. Academic dishonesty includes but is not limited to, the following:

1. Purposely incorporating the ideas, words of sentences, paragraphs, or parts thereof without appropriate acknowledgment and representing the product as one's own work; and
1. Representing another's intellectual work such as photographs, paintings, drawings, sculpture, or research or the like as one's own, including failure to attribute content to an AI.
2. Employing a tutor, making use of Artificial Intelligence without acknowledgement, getting a parent to write a paper or do an assignment, paying for an essay to be written by someone else and presented as the student's own work.
3. Committing any act that a reasonable person would conclude, when informed of the evidence, to be a dishonest means of obtaining or attempting to obtain credit for academic work.

Note: **Any act of academic dishonesty will result in an automatic zero on the entire assignment**.

1st QUARTER – TENTATIVE COURSE CONTENT

Week / Date	Topic / Projects / Assessments
(NB: Depending on time and interest, the teacher may delete and/or add other selections.)	
Week 1 **Aug 10th to 11th** **Only 2 School Days** *10 ~ First Day / Orientation Day*	**Chapter 0: A Brief Review of Arithmetic Skills** 0-0: Introduction to class rules and regulations. 0-1: Simplifying Fractions.
Week 2 **Aug 14th to 18th** *15 ~ Opening Mass*	0-2: Adding and Subtracting Fractions. 0-3: Multiplying and Dividing Fractions. 0-4: Using Decimals.
Week 3 **Aug 21st to 25th**	0-5: Percent, Rounding and Estimating. 0-6: Using the Mathematics Blueprint for Problem Solving. **Q_1-Test 1 (0.1 – 0.6).**
Week 4 **Aug 28th to Sep 1st**	**Chapter 1: Real Numbers and Variables** 1-1: Adding Real Numbers. 1-2: Subtracting Real Numbers. 1-3: Multiplying and Dividing Real Numbers.
Week 5 **Sep 4th to 8th** *8 ~ Holy Mass & VIP Induction*	1-4: Exponents. 1-5: The Order of Operations. 1-6: Using the Distributive Property to Simplify Algebraic Expressions.
Week 6 **Sep 11th to 15th** *12-14 ~ Pre-Exam Days*	1-7: Combining Like Terms. 1-8: Using Substitution to Evaluate Algebraic Expressions and Formulas. 1-9: Grouping of Symbols. **Q_1-Test 2 (1.1 – 2.9)**
Week 7 **Sep 18th to 22nd**	**Chapter 2: Equations and Inequalities** 2-1: Addition Principle of Equality. 2-2: The Multiplication Principle of Equality. 2-3: Using the Addition and Multiplication Principles Together.
Week 8 **Sep 25th to 29th** **No Classes** *25-28 ~Teacher's Conference* *29 – Moon Festival Holiday*	2-4: Solving Equations with Fractions. 2-5: Formulas. 2-6: Solving Inequalities in One Variable. **Q_1-Test 3 (2.1 – 2.6)**
Week 9 **Oct 2nd to 6th**	**Chapter 0, 1, and 2 Revision.**

3 Days of Class *5-6 ~Q1 Exams*	**First Quarter Examination.**

2nd QUARTER – TENTATIVE COURSE CONTENT

Week / Date	Topic / Projects / Assessments
(NB: Depending on time and interest, the teacher may delete and/or add other selections.)	

Week / Date	Topic / Projects / Assessments
Week 1 (10) **Oct 9th to 13th** **3 Days of Class** *9-10 – Double 10 Holiday*	**Chapter 3: Solving Applied Problems** 3-1: Translating English Phrases into Algebraic Expressions. 3-2: Using Equations to Solve Word Problems.
Week 2 (11) **Oct 16th to 20th**	3-3: Solving Word Problems: Comparisons. 3-4: Solving Word Problems: The Value of Money and Percent. 3-5: Solving Word Problems Using Geometric Formulas.
Week 3 (12) **Oct 23rd to 27th**	3-6: Using Inequalities to Solve Word Problems. **Q₂-Test 1 (3.1– 3.6).**
Week 4 (13) **Oct 30th to Nov 3rd** *1 - All Saint's Day Mass*	**Chapter 4: Exponents and Polynomials** 4-1: The Rules of Exponents. 4-2: Negative Exponents and Scientific Notations. 4-3: Fundamental Polynomial Operations.
Week 5 (14) **Nov 6th to 10th**	4-4: Multiplying Polynomials. 4-5: Multiplication: Special Cases. 4-6: Dividing Polynomials. **Q₂-Test 2 (4.1– 4.6)**
Week 6 (15) **Nov 13th to 17th**	**Chapter 5: Factoring** 5-1: Removing a Common Factor. 5-2: Factoring by Grouping.
Week 7 (16) **Nov 20th to 24th**	5-3: Factoring Trinomials of the Form: $x^2 + bx + c$. 5-4: Factoring Trinomials of the Form: $ax^2 + bx + c$.
Week 8 (17) **Nov 27th to Dec 1st**	5-5: Special Cases of Factoring. 5-6: A Brief of Factoring.

Week / Date	Topic / Projects / Assessments
Week 9 (18) **Dec 4th to 8th** 8 - Foundation Day Celebrations	5-7: Solving Quadratic Equations by Factoring. **Q2-Test 3 (5.1– 5.7).**
Week 10 (19) **Dec 11th to 15th** <u>**3 Days of Class**</u> *14-15 ~ Q2 Exams*	**Chapter 3, 4, and 5 Revision.** **Second Quarter Examination.**
Dec 18th to Jan 1st	**Christmas Holiday**

3rd QUARTER – TENTATIVE COURSE CONTENT

(NB: Depending on time and interest, the teacher may delete and/or add other selections.)	
Week / Date	Topic / Projects / Assessments
Week 1 (20) **Jan 3rd to 5th** <u>**3 Days of Class**</u> *4 ~ New Year Mass*	**Chapter 6: Rational Expressions and Equations** 6-1: Simplifying Rational Expressions.
Week 2 (21) **Jan 8th to 12th**	6-2: Multiplying and Dividing Rational Expressions. 6-3: Adding and Subtracting Rational Expressions. 6-4: Simplifying Complex Rational Expressions.
Week 3 (22) **Jan 15th to 19th**	6-5: Solving Equations Involving Rational Expressions. 6-6: Ratio, Proportion and Other Applied Problems. **Q3-Test 1 (6.1– 6.6).**
Week 4 (23) **Jan 22nd to 26th**	**Chapter 7: Graphing and Functions** 7-1: The Rectangular Coordinate System. 7-2: Graphing Linear Equations. 7-3: The Slope of a Line.
Week 5 (24) **Jan 29th to Feb 2nd**	7-4: Writing the Equation of Line. 7-5: Graphing Linear Inequalities. 7-6: Functions. **Q3-Test 2 (7.1– 7.6)**
Week 6 (25) **Feb 5th to 9th** <u>**3 Days of Class**</u> *8-9 ~ CNY*	**Chapter 8: Systems of Equations** 8-1: Solving a System of Equations in Two Variables by Graphing.

Week / Date	Topic / Projects / Assessments
	8-2: Solving a System of Equations in Two Variables by the Substitution Method.
Feb 8th to 16th	**CNY Holiday**
Week 7 (26) **Feb 19th to 23rd** *19 ~ Lenten Mass* *21-23 ~ Pre-Exam Days*	8-3: Solving a System of Equations in Two Variables by the Addition Method. 8-4: Review of Methods for Solving Systems of Equations.
Week 8 (27) **Feb 26th to March 1st** **4 Days of Class** *28 ~ 228 Memorial Day Holiday*	8-5: Solving Word Problems Using Systems of Equations. **Q₃-Test 3 (8.1– 8.5).**
Week 9 (28) **March 4th to 8th** **4 Days of Class** *8 ~ Q3 Exams*	**Chapter 6, 7 and 8 Revision.** **Third Quarter Examination.**

4th QUARTER – TENTATIVE COURSE CONTENT

(NB: Depending on time and interest, the teacher may delete and/or add other selections.)	

Week / Date	Topic / Projects / Assessments
Week 1 (29) **March 11th to 15th** **4 Days of Class** *11 ~ Q3 Exams* *12 ~ Q4 Begins*	**Chapter 9: Radicals** 9-1: Square Roots. 9-2: Simplifying Radical Expressions. 9-3: Adding and Subtracting Radical Expressions.
Week 2 (30) **March 18th to 22nd** *18-21 ~ Fire Drill*	9-4: Multiplying Radical Expressions. 9-5: Dividing Radical Expressions. **Q₄-Test 1 (9.1– 9.5).**
March 25th to Apr 5th	**Easter Holiday**
Week 3 (31) **Apr 8th to 12th** *10 ~ Easter Mass*	9-6: The Pythagorean Theorem and Radical Equations. 9-7: Word Problems Involving Radicals: Direct and Inverse Variation. **Q₄-Test 2 (9.6– 9.7)**
Week 4 (33) **Apr 15th to 19th**	**Chapter 10: Quadratic Equations** 10-1: Introduction to Quadratic Equations. 10-2: Using Square Root Property & Completing the Square to Find Solutions.
Week 5 (34) **Apr 22nd to 26th** *22-26 ~ AP Mock Exams*	10-3: Using the Quadratic Formula to Find Solutions. 10-4: Graphing Quadratic Equations.

Week 6 (35) **Apr 29th to May 3rd** *1-2 ~ Pre-Exam* *1-10~ Final Exams (K, 5, 8, 12 only)* *4/29 – 5/10 ~ AP Exams*	10-5: Formula and Applied Problems. **Q4-Test 3 (10.1– 10.5).**
Week 7 (36) **May 6th to 10th** *1-10~ Final Exams (K, 5, 8, 12 only)* *4/29 – 5/10 ~ AP Exams*	**Chapter 9 and 10 Revision.**
Week 8 (37) **May 13th to 17th** **2 Days of Class** *15-16 ~ Q4 Exams* *17 ~ Record Day*	**Fourth Quarter Examination.**
Week 9 (38) **May 20th to 24th** **ACTIVITIES:** *Double check the school calendar and emails from the administration.*	-- *20-24 ~ Student Clearance Days* *21 ~ Baccalaureate Mass for Graduating classes* *22 & 23 ~ Middle & High School Sports Day* *23 ~ Pre-Kindergarten & Gr. 1 - 4 Recognition/Kindergarten Graduation/Gr. 5 Promotion* *24 ~ Gr. 6 – 7 Recognition and Gr. 8 Graduation* *24 ~ Lower School Sports Day*
Week 10 (39) **May 27th to 31st** **ACTIVITIES:** *Double check the school calendar and emails from the administration.*	-- *27 ~ House Culminating Activity* *28 ~ Gr. 9-11 Recognition and Gr. 12 Graduation* *29 ~ Class Party* *30 ~ Last Day of School & Report Card Distribution (half day)* *31 ~ Teachers/Staff Meeting*