



## Pre-Algebra

### COURSE SYLLABUS

**GRADE LEVEL:** Grade 7

**SCHOOL YEAR:** 2024/2025

**TEACHER:** Ms. Victoria Santiago

**EMAIL:** [vsantiago@dishs.tp.edu.tw](mailto:vsantiago@dishs.tp.edu.tw)

#### **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%
- Department = 10%

## **PRIMARY TEXTBOOK & OTHER RESOURCES**

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

## **ADDITIONAL INFORMATION**

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

**Google Classroom code for 7J: 44pkluc**

**Google Classroom code for 7T: 562flck**

# 1st QUARTER – TENTATIVE COURSE CONTENT

Week / Date	Topic / Projects / Assessments
<b>Week 1</b> <b>Aug 12<sup>th</sup> to 16<sup>th</sup></b> 12~ First Day / Orientation Day 15~ Opening Mass & Assumption of Our Lady 8:00 15~ Induction of Class, Student Council Officers and DYM	<b>Orientation</b> Introduction to class rules and regulations. <b>Register online textbook</b> <b>Chapter 0: A Brief Review of Arithmetic Skills</b> 0-1: Simplifying Fractions. 0-2: Adding and Subtracting Fractions.
<b>Week 2</b> <b>Aug 19<sup>th</sup> to 23<sup>rd</sup></b>	0-3: Multiplying and Dividing Fractions. 0-4: Using Decimals.
<b>Week 3</b> <b>Aug 26<sup>st</sup> to 30<sup>th</sup></b> 26~Fire drill? 26~Middle and High School Catholic Bridge Program (after assembly) 28~St. Dominic de Guzman Feast Day Celebration	0-5: Percent, Rounding and Estimating. 0-6: Using the Mathematics Blueprint for Problem Solving. <b>Q<sub>1</sub>-Test 1 (0.1 – 0.6).</b>
<b>Week 4</b> <b>Sep 2<sup>nd</sup> to 6<sup>th</sup></b> 2~House Ceremony	<b>Chapter 1: Real Numbers and Variables</b> 1-1: Adding Real Numbers. 1-2: Subtracting Real Numbers. 1-3: Multiplying and Dividing Real Numbers.
<b>Week 5</b> <b>Sep 9<sup>th</sup> to 13<sup>th</sup></b> 9~ Mass & Birthday Mother Mary& VIP Induction	1-4: Exponents. 1-5: The Order of Operations.
<b>Week 6</b> <b>Sep 16<sup>th</sup> to 20<sup>th</sup></b> <b>1 Day of Class</b> 17~Moon Festival 18-20~ Teacher's Conference	1-6: Using the Distributive Property to Simplify Algebraic Expressions.
<b>Week 7</b> <b>Sep 23<sup>rd</sup> to 27<sup>th</sup></b> 24-26~Pre-Exam Days	1-7: Combining Like Terms. 1-8: Using Substitution to Evaluate Algebraic Expressions and Formulas.
<b>Week 8</b> <b>Sep 30<sup>th</sup> to Oct 4<sup>th</sup></b>	1-9: Grouping of Symbols. <b>Chapter 2: Equations and Inequalities</b> 2-1: Addition Principle of Equality. <b>Q<sub>1</sub>-Test 2 (1.1 – 1.9)</b>
<b>Week 9</b> <b>Oct 7<sup>th</sup> to 11<sup>th</sup></b>	<b>Revision.</b> <b>First Quarter Examination.</b>

**1 Day of Class**

7~Launching - Rosary Month and  
Bullying Prevention Day  
8-9 ~Q1 Exams  
10~Double Ten  
11~Record Day

## 2<sup>nd</sup> QUARTER – TENTATIVE COURSE CONTENT

Week / Date	Topic / Projects / Assessments
<b>Week 1 (10)</b> <b>Oct 14<sup>th</sup> to 18<sup>th</sup></b> 14~ Second Quarter Begins	<b>Chapter 2: Equations and Inequalities</b> 2-2: The Multiplication Principle of Equality. 2-3: Using the Addition and Multiplication Principles Together
<b>Week 2 (11)</b> <b>Oct 21<sup>st</sup> to 25<sup>th</sup></b> 25 – Book Fair 25- Masquerade Night	<b>Chapter 2: Equations and Inequalities</b> 2-4: Solving Equations with Fractions. 2-5: Formulas. 2-6: Solving Inequalities in One Variable. <b>Q2-Test 1 (2.2-2.6).</b>
<b>Week 3 (12)</b> <b>Oct 28<sup>th</sup> to Nov 1<sup>st</sup></b> 1-All Saint's Day Mass	<b>Chapter 3: Solving Applied Problems</b> 3-1: Translating English Phrases into Algebraic Expressions. 3-2: Using Equations to Solve Word Problems.
<b>Week 4 (13)</b> <b>Nov 4<sup>th</sup> to Nov 8<sup>th</sup></b>	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.
<b>Week 5 (14)</b> <b>Nov 11<sup>th</sup> to 15<sup>th</sup></b>	3-6: Using Inequalities to Solve Word Problems. <b>Q2-Test 2 (3.1– 3.6).</b>
<b>Week 6 (15)</b> <b>Nov 18<sup>th</sup> to 22<sup>nd</sup></b> 22-Gr.12 Q2 Exam 22 - YSC Contest	<b>Chapter 4: Exponents and Polynomials</b> 4-1: The Rules of Exponents. 4-2: Negative Exponents and Scientific Notations. <b>Q2-Test 3 (4.1– 4.2)</b>
<b>Week 7 (16)</b> <b>Nov 25<sup>th</sup> to 29<sup>th</sup></b> 25-Gr.12 Q2 Exam 26-28~Pre-Exam Day	4-3: Fundamental Polynomial Operations. 4-4: Multiplying Polynomials. 4-5: Multiplication: Special Cases.

<b>Week 8 (17)</b> <b>Dec 2<sup>nd</sup> to Dec 6<sup>th</sup></b> <b>6~Half Day</b> Foundation Day Celebrations	4-6: Dividing Polynomials. <b>Chapter 5: Factoring</b> 5-1: Removing a Common Factor. <b>Q2-Test 4 (4.3– 4.6).</b>
<b>Week 9 (18)</b> <b>Dec 9<sup>th</sup> to 13<sup>th</sup></b> <b>3 Days of Class</b> 12-13 ~Q2 Exams	<b>Revision.</b> <b>Second Quarter Examination.</b>
<b>Dec 16<sup>th</sup> to Jan 3<sup>rd</sup></b>	<b>Christmas Break</b>

### **3rd QUARTER – TENTATIVE COURSE CONTENT**

Week / Date	Topic / Projects / Assessments
<b>Week 1 (19)</b> <b>Jan 6<sup>th</sup> to 10<sup>th</sup></b> <b>4 Days of Class</b> 6~Record Day 7~Third Quarter Begins 10 ~ New Year Mass	<b>Chapter 5: Factoring</b> 5-2: Factoring by Grouping.
<b>Week 2 (20)</b> <b>Jan 13<sup>th</sup> to 17<sup>th</sup></b>	5-3: Factoring Trinomials of the Form: $x^2 + bx + c$ . 5-4: Factoring Trinomials of the Form: $ax^2 + bx + c$ .
<b>Week 3 (21)</b> <b>Jan 20<sup>th</sup> to 24<sup>th</sup></b>	5-5: Special Cases of Factoring. 5-6: A Brief of Factoring. <b>Q3-Test 1 (5.1– 5.6)</b>
<b>Jan 27<sup>th</sup> to Jan 31<sup>st</sup></b>	<b>Chinese New Year</b>
<b>Week 4 (22)</b> <b>Feb 3<sup>rd</sup> to 7<sup>th</sup></b>	<b>Chapter 7: Graphing and Functions</b> 7-1: The Rectangular Coordinate System. 7-2: Graphing Linear Equations. 7-3: The Slope of a Line.
<b>Week 5 (23)</b> <b>Feb 10<sup>th</sup> to 14<sup>th</sup></b> 1-14~Catholic Week	7-4: Writing the Equation of Line. 7-5: Graphing Linear Inequalities. 7-6: Functions.
<b>Week 6 (24)</b> <b>Feb 17<sup>th</sup> to 21<sup>st</sup></b>	<b>Chapter 8: Systems of Equations</b> 8-1: Solving a System of Equations in Two Variables by Graphing. 8-2: Solving a System of Equations in Two Variables by the Substitution Method.

	<b>Q3-Test 2 (7.1– 7.6)</b>
<b>Week 7 (25)</b> <b>Feb 24<sup>th</sup> to 28<sup>th</sup></b> <u><b>4 Days of Class</b></u> 24~Lenten Mass? 25-27 ~ Pre-Exam Days 24-27~IOWA Assessments 28 ~ Memorial Day Holiday	8-3: Solving a System of Equations in Two Variables by the Addition Method. 8-4: Review of Methods for Solving Systems of Equations.
<b>Week 8 (26)</b> <b>March 3<sup>rd</sup> to 7<sup>th</sup></b> 5~ Ash Wednesday	8-5: Solving Word Problems Using Systems of Equations.  <b>Q3-Test 3 (8.1– 8.5).</b>
<b>Week 9 (27)</b> <b>March 10<sup>th</sup> to 14<sup>th</sup></b> <u><b>4 Days of Class</b></u> 14 – Q3 Exams	<b>Revision.</b> <b>Third Quarter Examination.</b>

## **4th QUARTER – TENTATIVE COURSE CONTENT**

Week / Date	Topic / Projects / Assessments
<b>Week 1 (28)</b> <b>March 17<sup>th</sup> 21<sup>st</sup></b> <u><b>4 Days of Class</b></u> 17 – Q3 Exams 18~ Fourth Quarter Begins 18~ Fire Drill? 19~ Feast of St. Joseph	<b>Chapter 9: Radicals</b> 9-1: Square Roots. 9-2: Simplifying Radical Expressions.
<b>Week 2 (29)</b> <b>March 24<sup>th</sup> to 28<sup>th</sup></b>	9-3: Adding and Subtracting Radical Expressions. 9-4: Multiplying Radical Expressions. 9-5: Dividing Radical Expressions.
<b>Week 3 (30)</b> <b>March 31<sup>st</sup> to April 4<sup>th</sup></b> <u><b>4 Days of Class</b></u> 4~Tomb Sweeping	9-6: The Pythagorean Theorem and Radical Equations. 9-7: Word Problems Involving Radicals: Direct and Inverse Variation. <b>Q4-Test 1 (9.1– 9.5).</b>
<b>Week 4 (31)</b> <b>Apr 7<sup>th</sup> to 11<sup>th</sup></b>	<b>Chapter 10: Quadratic Equations</b> 10-1: Introduction to Quadratic Equations. 10-2: Using Square Root Property & Completing the Square to Find Solutions. <b>Q4-Test 2 (9.6– 9.7)</b>
<b>April 14<sup>th</sup> to April 18<sup>th</sup></b>	<b>Easter Break</b>
<b>Week 5 (32)</b> <b>Apr 21<sup>st</sup> to 25<sup>th</sup></b>	10-3: Using the Quadratic Formula to Find Solutions.

<p>23~Easter Mass 21-25 ~ AP Mock Exams 26~Spring Fair</p>	<p>10-4: Graphing Quadratic Equations.</p>
<p><b>Week 6 (33)</b> <b>Apr 28<sup>th</sup> to May 2<sup>nd</sup></b> 4/29-5/1~ Pre-Exam Days 1-2~ Final Exams (K, 5, 8, 12 only)</p>	<p>10-5: Formula and Applied Problems.</p> <p><b>Q4-Test 3 (10.1– 10.5).</b></p>
<p><b>Week 7 (34)</b> <b>May 5<sup>th</sup> to 9<sup>th</sup></b> 5-9~ Final Exams (K, 5, 8, 12 only) 5-9 ~ AP Exams</p>	<p><b>Chapter 9 and 10 Revision.</b></p>
<p><b>Week 8 (35)</b> <b>May 12<sup>th</sup> to 16<sup>th</sup></b> <b><u>4 Days of Class</u></b> 14-15~ Q4 Exam 16~ Record Day 12-16 ~ AP Exams</p>	<p><b>Revision.</b></p> <p><b>Fourth Quarter Examination.</b></p>
<p><b>Week 9 (36)</b> <b>May 19<sup>th</sup> to 23<sup>rd</sup></b></p>	<p>19-23 ~ Student Clearance 19~ Baccalaureate Mass 23~Gr. 6 – 7 Recognition and Gr. 8 Graduation</p>
<p><b>Week 10 (37)</b> <b>May 26<sup>th</sup> to 30<sup>th</sup></b> <b><u>4 Days of Class</u></b></p>	<p>26~House Culminating Activity 27~Gr. 9-11 Recognition and Gr. 12 Graduation 28! Class Party 29- ~ Students Last Day 30~ Teachers/Staff Meeting</p>