

 <b>GRADES 1 to 12 DAILY LESSON LOG</b>	<b>School</b>	Sauyo High School	<b>Grade Level</b>	Grade 8
	<b>Teacher</b>	Mr. Jonathan R. Bacolod, LPT	<b>Learning Area</b>	Mathematics
	<b>Teaching Dates and Time</b>	Week 5, July 1 – 5, 2019	<b>Quarter</b>	1st

<b>I. OBJECTIVES</b>	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>	<b>DAY 5</b>
<b>Learning Competencies/ Objectives:</b>	1. Define the steps in factor- ing general trinomials; 2. Calculate the factors of gen- eral trinomials; and, 3. Display perseverance and perseverance in solving problems.	1. Define the steps in rational algebraic expressions; 2. Calculate the factors of gen- eral trinomials; and, 3. Display perseverance and perseverance in solving problems.	1. Define the steps in evaluat- ing rational expressions; 2. Compute the factors of gen- eral trinomials; and, 3. Show perseverance and perseverance in solving problems.	1. Define the steps in simplify- ing rational expressions; 2. Generate the factors of gen- eral trinomials; and, 3. Exhibit enjoyment and en- joyment in solving prob- lems.	1. Define the steps in adding and subtracting similar rational algebraic expres- sions; 2. Find the factors of general trinomials; and, 3. Project independence and independence in solving problems.
<b>II. CONTENT</b>	<b>RATIONAL ALGEBRAIC EXPRESSIONS AND ALGEBRAIC EXPRESSIONS WITH INTEGRAL EXPONENTS</b>				
	<b>Factoring General Trinomials</b>	<b>Rational Algebraic Expressions</b>	<b>Evaluating Rational Expressions</b>	<b>Simplifying Rational Expressions</b>	<b>Adding and Subtracting Similar Rational Algebraic Expressions</b>
<b>III. LEARNING RESOURCES</b>					
<b>A. References</b>					
<b>1. Teacher's Guide Pages</b>	pp. 64–71	pp. 64–71	pp. 64–71	pp. 64–71	pp. 64–71
<b>2. Learner's Materials Pages</b>	pp. 55–61	pp. 55–61	pp. 55–61	pp. 55–61	pp. 55–61
<b>3. Textbook Pages</b>	pp. 74–82	pp. 74–82	pp. 74–82	pp. 74–82	pp. 74–82
<b>4. Additional Materials from Learning Resources Portal</b>					
<b>B. Other Learning Resources</b>	Flashcards	Flashcards	Flashcards	Flashcards	Flashcards
<b>IV. PROCEDURES</b>					

<b>A. Reviewing Previous Lesson or Presenting New Lesson</b>	<p style="text-align: center;"><b>Factoring General Trinomials</b></p> <p>Steps in Factoring Trinomials of the Form <math>ax^2 + bx + c</math></p> <ol style="list-style-type: none"> <li>1. Find the product of the first and the last term.</li> <li>2. Find the factors of the product whose sum equals the middle term.</li> <li>3. Replace the middle term with the sum of the factors.</li> <li>4. Perform Factoring by Grouping.</li> </ol>	<p style="text-align: center;"><b>Rational Algebraic Expressions</b></p> <p><b>Rational Algebraic Expression:</b> a ratio of two polynomials provided that the denominator is not equal to zero</p> <p>In short, <math>\frac{P}{Q}</math>, where <math>P</math> and <math>Q</math> are polynomials and <math>Q \neq 0</math>.</p>	<p style="text-align: center;"><b>Evaluating Rational Expressions</b></p> <p>How to Evaluate Rational Expressions:</p> <ol style="list-style-type: none"> <li>1. Substitute the values of the variables.</li> <li>2. Simplify the expression.</li> </ol>	<p style="text-align: center;"><b>Simplifying Rational Expressions</b></p> <p><b>Simplifying Rational Expressions:</b> reducing the expression in lowest terms</p> <p><b>How to Simplify Rational Expressions:</b></p> <ol style="list-style-type: none"> <li>1. Factor the numerator and denominator completely.</li> <li>2. Divide any common factors.</li> </ol>	<p style="text-align: center;"><b>Adding and Subtracting Similar Rational Algebraic Expressions</b></p> <p>How to Add or Subtract Similar Rational Algebraic Expressions:</p> <ol style="list-style-type: none"> <li>1. Add or subtract the numerators.</li> <li>2. Simplify the result.</li> </ol> <p>In symbols,</p> $\frac{a}{b} + \frac{c}{b} = \frac{a+c}{b}$
<b>B. Establishing a Purpose for the Lesson</b>	<p>The purpose of this lesson is to enable the students to solve real life problems by factoring general trinomials.</p>	<p>The purpose of this lesson is to enable the students to solve real life problems by rational algebraic expressions.</p>	<p>The purpose of this lesson is to enable the students to solve real life problems by evaluating rational expressions.</p>	<p>The purpose of this lesson is to enable the students to solve real life problems by simplifying rational expressions.</p>	<p>The purpose of this lesson is to enable the students to solve real life problems by adding and subtracting similar rational algebraic expressions.</p>

<b>C. Discussing New Concepts and Practicing New Skills #1</b>	<b>Practice Exercises</b> Factor the following polynomials completely. <div>             1. <math>6x^2 + x - 2</math>              2. <math>3x^2 + x - 2</math>              3. <math>2a^2 - a - 6</math>              4. <math>4m^2 + 3m - 1</math>              5. <math>3a^2 + a - 4</math> </div>	<b>Practice Exercises</b> Convert the following expressions into expressions with positive exponents. <div>             a. <math>b^{-4}</math>              b. <math>\frac{c^{-3}}{d^{-8}}</math>              c. <math>w^{-3}z^{-2}</math>              d. <math>a^3b^{-3}c</math>              e. <math>de^{-5}f</math>              f. <math>\frac{(x+y)}{(x-y)^0}</math> </div>	<b>Practice Exercises</b> Evaluate the following rational expressions. <div>             1. <math>40y - 1, y = 5</math>              2. <math>(p^2 - 3)^{-2}, p = 1</math>              3. <math>\frac{(x-1)^{-2}}{(x+1)^{-2}}, x = 2</math>              4. <math>y^{-3} - y^{-2}, y = 2</math>              5. <math>a^{-1}b^0, a = 2, b = 3</math> </div>	<b>Practice Exercises</b> Simplify the following rational expressions. <div>             1. <math>\frac{4x+16}{2x}</math>              2. <math>\frac{x-5}{5-x}</math>              3. <math>\frac{3x^3+6x^2}{3x^2}</math>              4. <math>\frac{4x^2-4x+1}{2x-1}</math>              5. <math>\frac{x^2+5x+6}{x+3}</math> </div>	<b>Practice Exercises</b> Perform the indicated operation. <div>             1. <math>\frac{6}{2a-6} + \frac{4}{2a-6}</math>              2. <math>\frac{x^2+3x-2}{x^2+2x+4} \div \frac{x^2-4}{x^2-4}</math> +              3. <math>\frac{7}{4x-2} - \frac{5}{4x-2}</math>              4. <math>\frac{x^2+3x+2}{x^2-2x+1} \div \frac{3x+3}{x^2-2x+1}</math> -              5. <math>\frac{x-2}{x-1} + \frac{1}{x-1}</math> </div>
<b>D. Discussing New Concepts and Practicing New Skills #2</b>					

E. Developing Mastery	Problem Set	Problem Set	Problem Set	Problem Set	Problem Set
	Factor the following polynomials completely.	Convert the following expressions into expressions with positive exponents.	Evaluate the following rational expressions.	Simplify the following rational expressions.	Perform the indicated operation.
	1. $3x^2 + 7x + 4$ 2. $2x^2 + 3x - 9$ 3. $6a^2 + 11a + 3$ 4. $4m^2 - 5m - 6$ 5. $3a^2 - a - 4$ 6. $4m^2 - 11mn + 6n^2$ 7. $3a^2 - 7ab - 6b^2$ 8. $4c^2 - 19cd - 5d^2$ 9. $10x^2 - 27xy + 18y^2$ 10. $6m^2 - 7mn - 3n^2$	1. $a^{-7}$ 2. $\frac{a^{-4}}{e^{-5}}$ 3. $x^{-2}y^{-5}$ 4. $x^2y^{-5}z$ 5. $mn^{-6}p$ 6. $\frac{(a-b)}{(a+b)^0}$ 7. $x^{-7}y^2z^{-4}$ 8. $a^{-4}b^5c^{-2}$ 9. $m^{-3}n^2p^{-8}$ 10. $\frac{(m^2-n)}{(m^2+n)^0}$	1. $\frac{1}{a^{-2}}(a+4), \ a = -8$ 2. $(p^3-5)^{-2}, \ p = 2$ 3. $\frac{(x-2)^{-3}}{(x+1)^{-3}}, \ x = 4$ 4. $y^{-4} - y^{-3}, \ y = 3$ 5. $\frac{(m-n)^0}{(m+n)^{-1}}, \ m = 2, n = 3$	1. $\frac{x^2+3x}{x+3}$ 2. $\frac{2x^2+8x}{2x}$ 3. $\frac{x^2-16}{x-4}$ 4. $\frac{x^3+64}{x^2-4x+16}$ 5. $\frac{2x^2-9x-5}{x-5}$ 6. $\frac{2x^2+4x}{x+2}$ 7. $\frac{4x^3-8x^2}{4x^2}$ 8. $\frac{4x^2-25}{2x-5}$ 9. $\frac{8x^3-27}{4x^2+6x+9}$ 10. $\frac{3x^2-12x+12}{x-2}$	1. $\frac{6}{3a-9} - \frac{3}{3a-9}$ 2. $\frac{x^2-3x-7}{x^2-9} + \frac{x^2-9}{x^2-2x+4}$ 3. $\frac{7}{3x-6} - \frac{4}{3x-6}$ 4. $\frac{x^2+2x+2}{x^2-4x+4} - \frac{2x+6}{x^2-4x+4}$ 5. $\frac{x-2}{x-4} - \frac{2}{x-4}$

<b>F. Finding Practical Application of Concepts and Skills in Daily Living</b>	<p>Let the students answer the following questions:</p> <ol style="list-style-type: none"><li>1. In what real life situations or problems can we observe some examples of factoring general trinomials?</li><li>2. How can you apply your knowledge of factoring general trinomials in solving these real life problems?</li></ol>	<p>Let the students answer the following questions:</p> <ol style="list-style-type: none"><li>1. In what real life situations or problems can we observe some examples of rational algebraic expressions?</li><li>2. How can you apply your knowledge of rational algebraic expressions in solving these real life problems?</li></ol>	<p>Let the students answer the following questions:</p> <ol style="list-style-type: none"><li>1. In what real life situations or problems can we observe some examples of evaluating rational expressions?</li><li>2. How can you apply your knowledge of evaluating rational expressions in solving these real life problems?</li></ol>	<p>Let the students answer the following questions:</p> <ol style="list-style-type: none"><li>1. In what real life situations or problems can we observe some examples of simplifying rational expressions?</li><li>2. How can you apply your knowledge of simplifying rational expressions in solving these real life problems?</li></ol>	<p>Let the students answer the following questions:</p> <ol style="list-style-type: none"><li>1. In what real life situations or problems can we observe some examples of adding and subtracting similar rational algebraic expressions?</li><li>2. How can you apply your knowledge of adding and subtracting similar rational algebraic expressions in solving these real life problems?</li></ol>
<b>G. Making Generalization and Abstractions about the Lesson</b>	<p>Let the students answer the following questions:</p> <ol style="list-style-type: none"><li>1. In your own words, how do we factor general trinomials?</li><li>2. How do we solve problems involving algebraic expressions that require factoring general trinomials?</li></ol>	<p>Let the students answer the following questions:</p> <ol style="list-style-type: none"><li>1. In your own words, how do we factor general trinomials?</li><li>2. How do we solve problems involving algebraic expressions that require rational algebraic expressions?</li></ol>	<p>Let the students answer the following questions:</p> <ol style="list-style-type: none"><li>1. In your own words, how do we factor general trinomials?</li><li>2. How do we solve problems involving algebraic expressions that require evaluating rational expressions?</li></ol>	<p>Let the students answer the following questions:</p> <ol style="list-style-type: none"><li>1. In your own words, how do we factor general trinomials?</li><li>2. How do we solve problems involving algebraic expressions that require simplifying rational expressions?</li></ol>	<p>Let the students answer the following questions:</p> <ol style="list-style-type: none"><li>1. In your own words, how do we factor general trinomials?</li><li>2. How do we solve problems involving algebraic expressions that require adding and subtracting similar rational algebraic expressions?</li></ol>
<b>H. Evaluating Learning</b>					
<b>I. Additional Activities for Application or Remediation</b>					

VI. REMARKS	Objectives have been attained: _____ Objectives were not attained due to: _____	Objectives have been attained: _____ Objectives were not attained due to: _____	Objectives have been attained: _____ Objectives were not attained due to: _____	Objectives have been attained: _____ Objectives were not attained due to: _____	Objectives have been attained: _____ Objectives were not attained due to: _____
VII. REFLECTION					
A. No. of learners who earned 80% in the evaluation	8-Bohr: _____ out of _____ 8-Copernicus: _____ out of _____ 8-Fleming: _____ out of _____	8-Bohr: _____ out of _____ 8-Copernicus: _____ out of _____ 8-Fleming: _____ out of _____	8-Bohr: _____ out of _____ 8-Copernicus: _____ out of _____ 8-Fleming: _____ out of _____	8-Bohr: _____ out of _____ 8-Copernicus: _____ out of _____ 8-Fleming: _____ out of _____	8-Bohr: _____ out of _____ 8-Copernicus: _____ out of _____ 8-Fleming: _____ out of _____
B. No. of learners who require additional activities for remediation who scored below 80%	8-Bohr: _____ out of _____ 8-Copernicus: _____ out of _____ 8-Fleming: _____ out of _____	8-Bohr: _____ out of _____ 8-Copernicus: _____ out of _____ 8-Fleming: _____ out of _____	8-Bohr: _____ out of _____ 8-Copernicus: _____ out of _____ 8-Fleming: _____ out of _____	8-Bohr: _____ out of _____ 8-Copernicus: _____ out of _____ 8-Fleming: _____ out of _____	8-Bohr: _____ out of _____ 8-Copernicus: _____ out of _____ 8-Fleming: _____ out of _____
C. Did the remedial lessons work? No. of learners who have caught up with the lesson	8-Bohr: _____ 8-Copernicus: _____ 8-Fleming: _____	8-Bohr: _____ 8-Copernicus: _____ 8-Fleming: _____	8-Bohr: _____ 8-Copernicus: _____ 8-Fleming: _____	8-Bohr: _____ 8-Copernicus: _____ 8-Fleming: _____	8-Bohr: _____ 8-Copernicus: _____ 8-Fleming: _____
D. No. of learners who continue to require remediation	8-Bohr: _____ 8-Copernicus: _____ 8-Fleming: _____	8-Bohr: _____ 8-Copernicus: _____ 8-Fleming: _____	8-Bohr: _____ 8-Copernicus: _____ 8-Fleming: _____	8-Bohr: _____ 8-Copernicus: _____ 8-Fleming: _____	8-Bohr: _____ 8-Copernicus: _____ 8-Fleming: _____
E. Which of my teaching strategies worked well? Why did these work?					
F. What difficulties did I encounter which my principal or supervisor can help me solve?					
G. What innovation or localized materials did I use/discover which I wish to share with other teachers?					

Checked by:

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