

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

I. OBJECTIVES	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Learning Competencies/ Objectives:	1. Define the steps in factoring general trinomials; 2. Calculate the factors of general trinomials; and, 3. Display perseverance and perseverance in solving problems.	1. Define rational algebraic expressions; 2. Rewrite expressions into rational algebraic expressions with positive exponents; and, 3. Show enjoyment and willingness in solving problems.	1. Reiterate the steps in evaluating rational expressions; 2. Evaluate rational algebraic expressions; and, 3. Show independence and perseverance in solving problems.	1. Discuss the steps in simplifying rational expressions; 2. Simplify rational algebraic expressions; and, 3. Exhibit enjoyment and interest in solving problems.	1. Describe the steps in adding and subtracting similar rational algebraic expressions; 2. Perform the steps in adding and subtracting similar rational algebraic expressions; and, 3. Project independence and willingness in solving problems.
II. CONTENT	RATIONAL ALGEBRAIC EXPRESSIONS AND ALGEBRAIC EXPRESSIONS WITH INTEGRAL EXPONENTS				
	Factoring General Trinomials	Rational Algebraic Expressions	Evaluating Rational Expressions	Simplifying Rational Expressions	Adding and Subtracting Similar Rational Algebraic Expressions
III. LEARNING RESOURCES					
A. References					
1. Teacher's Guide Pages	pp. 64–71	pp. 64–71	pp. 64–71	pp. 92–99	pp. 100–105
2. Learner's Materials Pages	pp. 55–61	pp. 55–61	pp. 55–61	pp. 79–85	pp. 86–90
3. Textbook Pages	pp. 74–82	pp. 74–82	pp. 74–82	pp. 106–114	pp. 115–121
4. Additional Materials from Learning Resources Portal					
B. Other Learning Resources	Flashcards	Flashcards	Flashcards	Flashcards	Flashcards

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

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

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. $\frac{x-2}{x-4} - \frac{2}{x-4}$

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

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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