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 3, June 17 – 21, 2019	Quarter	1st

I. OBJECTIVES	DAY 1	DAY 2	DAY 3	DAY 4
Learning Competencies/ Objectives:	1. Discuss the steps in finding the cube of a binomial; 2. Solve the cube of a binomial; and, 3. Demonstrate interest and willingness in solving problems.	1. Compare the steps in factoring the greatest common monomial factor with distributive multiplication; 2. Determine the factors of an algebraic expression using the greatest common monomial factor; and, 3. Demonstrate enjoyment and perseverance in solving problems.	1. Recognize the steps in factoring the difference of two squares with distributive multiplication; 2. Find the factors of an algebraic expression using the greatest common monomial factor; and, 3. Project willingness and willingness in solving problems.	1. Identify the steps in factoring the sum or difference of two cubes with distributive multiplication; 2. Find the factors of an algebraic expression using the greatest common monomial factor; and, 3. Show independence and independence in solving problems.
II. CONTENT	**SPECIAL PRODUCTS AND FACTORS**			
	Cube of a Binomial	**Factoring the Greatest Common Monomial Factor**	**Factoring the Difference of Two Squares**	**Factoring the Sum or Difference of Two Cub**
III. LEARNING RESOURCES				
A. References				
1. Teacher's Guide Pages	pp. 22–29	pp. 30–35	pp. 36–43	pp. 44–49
2. Learner's Materials Pages	pp. 19–25	pp. 26–30	pp. 31–37	pp. 38–42
3. Textbook Pages	pp. 24–32	pp. 33–39	pp. 40–49	pp. 50–56
4. Additional Materials from Learning Resources Portal				
B. Other Learning Resources	Flashcards	Flashcards	Flashcards	Flashcards
IV. PROCEDURES				

A. Reviewing Previous Lesson or Presenting New Lesson	**Cube of a Binomial** To find the cube of a binomial of the form $(x + y)^3$: 1. Find the cube of each term to get the first and the last terms. 2. The second term is three times the product of the square of the first term and the second term. 3. The third term is three times the product of the first term and the square of the second term. In symbols, $(x+y)^3 = x^3+3x^2y+3xy^2+y^3.$	**Factoring the Greatest Common Monomial Factor** **Factoring:** the process of finding the factors of an expression. **Prime Number:** a number greater than 1 which has only two positive factors: 1 and itself Steps in Factoring the Greatest Common Monomial Factor: 1. Find the Greatest Common Factor or GCF of the numerical and literal coefficients. 2. Divide the polynomial by its GCF. The quotient is the other factor.	**Factoring the Difference of Two Squares** The factored form of a polynomial that is a difference of two squares is the sum and difference of the square roots of the first and last terms. In symbols, $a^2 - b^2 = (a+b)(a-b)$	**Factoring the Sum or Difference of Two Cubes** Steps in Factoring the Sum or Difference of Two Cubes: A. To find the binomial factor: a. Find the cube root of the first cube. b. Find the cube root of the second cube, then affix the sign of the second cube. B. To find the trinomial factor: a. Square the first term of the binomial factor. b. Multiply the first and second terms of the binomial factor, then affix the sign that is opposite the sign of the second term. c. Square the second term of the binomial factor. In symbols, $x^3+y^3 = (x+y)(x^2-xy+y^2)$ $x^3-y^3 = (x-y)(x^2+xy+y^2)$

B. Establishing a Purpose for the Lesson	The purpose of this lesson is to enable the students to solve real life problems involving the cube of a binomial.	The purpose of this lesson is to enable the students to solve real life problems by factoring the greatest common monomial factor.	The purpose of this lesson is to enable the students to solve real life problems by factoring the difference of two squares.	The purpose of this lesson is to enable the students to solve real life problems by factoring the sum or difference of two cubes.
C. Discussing New Concepts and Practicing New Skills #1	**Practice Exercises** Cube each binomial. 1. $(x+5)^3$ 2. $(a-3b)^3$ 3. $(4h^2+2k)^3$ 4. $(-3x-2y)^3$ 5. $(5m+2n^2)^3$	**Practice Exercises** Factor the following polynomials completely. 1. $3x+6$ 2. $12x^4+8x^3y+4x^2y^2$ 3. $3x^3-6x^2+3x$ 4. $6y^3z+7y^2z^2+2yz^3$ 5. $6x^3-8x^2y^2+4x^2z$	**Practice Exercises** Factor the following polynomials completely. 1. $36x^2-64$ 2. $16x^4-49y^2z^2$ 3. $4a^2-b^6$ 4. $81m^4n^2-9z^6$ 5. a^4-16b^2	**Practice Exercises** Factor the following polynomials completely. 1. x^3+64y^3 2. $8x^3-y^3z^6$ 3. a^9+125b^6 4. $27m^3-8n^3$ 5. $64a^3-27b^3c^6$
D. Discussing New Concepts and Practicing New Skills #2	B. Fill in the blanks. 1. $(x-3y)^3 = x^3 - \_\_\_\_ + 27xy^2 - \_\_\_\_$ 2. $(2x+z^2)^3 = 8x^3 + \_\_\_\_ + \_\_\_\_ + z^6$ 3. $(-3t^2-2y^3)^3 = -27t^6 - \_\_\_\_ - 36t^2y^6 - \_\_\_\_$ 4. $(-xy^2+3z^2)^3 = \_\_\_\_ + 9x^2y^4z^2 - \_\_\_\_ + 27z^6$ 5. $(x^2y^3 - 2z^3)^3 = x^6y^9 - \_\_\_\_ + \_\_\_\_ - 8z^9$			

E. Developing Mastery	**Problem Set** A. Cube each binomial. 1. $(2m+3r)^3$ 2. $(-4a-c)^3$ 3. $(3h^2-2i)^3$ 4. $(5x+3y)^3$ 5. $(2m-4n^3)^3$ B. Fill in the blanks. 1. $(2x-y)^3 = 8x^3 - \_\_\_\_ + \_\_\_\_ - y^3$ 2. $(3x+z^3)^3 = \_\_\_\_ + \_\_\_\_ + 9xz^6 + z^9$ 3. $(-2t^2-y^3)^3 = -8t^6 - \_\_\_\_ - \_\_\_\_ - y^9$ 4. $(-3xy^2+z^2)^3 = -27x^3y^6 + \_\_\_\_ - \_\_\_\_ + z^6$ 5. $(3x^3y^2-2z^2)^3 = \_\_\_\_ - \_\_\_\_ + 36x^3y^2z^4 - 8z^6$	**Problem Set** Factor the following polynomials completely. 1. $15xy+6y$ 2. $18x^3+8x^4y+14x^2y^3$ 3. $6x^4-15x^2+18xy$ 4. $12y^3z+15y^2z^2+3yz^4$ 5. $12x^4-6x^3y^4+9x^3z^2$ 6. $4x^6-10x^4y^6+8x^4z^5$ 7. $8x^3y^3+28x^2y^7+12x^2y^3z^3$ 8. $15x^6y+40x^3y^3-25x^3yz^4$ 9. $12x^3y^3-54xy^7-24xy^3z^6$ 10. $21x^6y^2+56x^3y^4-21x^3y^2z^4$	**Problem Set** Factor the following polynomials completely. 1. $4x^2-49y^2$ 2. a^2-100 3. y^8-16y^4 4. y^4-1 5. $25m^2-9$ 6. $144x^6-100y^4$ 7. a^2b^4-121 8. $y^6z^2-49y^8$ 9. x^2y^4-64 10. $36m^6-81$	**Problem Set** Factor the following polynomials completely. 1. $27x^3-64y^3z^6$ 2. $8x^3+125$ 3. $64a^3-8b^9c^3$ 4. $27m^3+125n^3$ 5. $64a^3+27$ 6. $8x^9y^3+64z^6$ 7. $216x^3+8y^9$ 8. $a^3b^6-64c^9d^3$ 9. $125m^3-27n^6$ 10. $216a^6+64b^9$

F. Finding Practical Application of Concepts and Skills in Daily Living	Let the students answer the following questions: 1. In what real life situations or problems can we observe some examples of cubing binomials? 2. How can you apply your knowledge of cubing binomials in solving these real life problems?	Let the students answer the following questions: 1. In what real life situations or problems can we observe some examples of factoring? 2. How can you apply your knowledge of factoring the greatest common monomial factor in solving these real life problems?	Let the students answer the following questions: 1. In what real life situations or problems can we observe some examples of factoring? 2. How can you apply your knowledge of factoring the difference of two squares in solving these real life problems?	Let the students answer the following questions: 1. In what real life situations or problems can we observe some examples of factoring? 2. How can you apply your knowledge of factoring the sum or difference of two cubes in solving these real life problems?
G. Making Generalization and Abstractions about the Lesson	Let the students answer the following questions: 1. In your own words, how do we get the cube of a binomial? 2. How do we solve problems involving the cube of a binomial?	Let the students answer the following questions: 1. In your own words, how do we factor the greatest common monomial factor? 2. How do we solve problems involving algebraic expressions that require factoring the greatest common monomial factor?	Let the students answer the following questions: 1. In your own words, how do we factor the greatest common monomial factor? 2. How do we solve problems involving algebraic expressions that require factoring the difference of two squares?	Let the students answer the following questions: 1. In your own words, how do we factor the greatest common monomial factor? 2. How do we solve problems involving algebraic expressions that require factoring the sum or difference of two cubes?
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: _____
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 _____

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 _____
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: _____
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: _____
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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