Republic of the Philippines
Department of Education
National Capital Region
SCHOOLS DIVISION OFFICE QUEZON CITY
SAUYO HIGH SCHOOL
Pantabangan St., NIA Village, Sauyo, Quezon City

DAILY LESSON LOG
S.Y. 2025–2026

Date: **June 23–27, 2025** Quarter: **1** Week: **2**

LEARNING AREA/LEVEL: Mathematics 8 **Teacher: JUANITO MANGAHAS**

Section and Time	Monday	Tuesday	Wednesday	Thursday	Friday
mangahas	1	1	1	1	1
Section and Time	2	2	2	2	2
Section and Time	3	3	3	3	3
Section and Time	4	4	4	4	4
Section and Time	5	5	5	5	5

I. OBJECTIVES:	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
A. Content Standards	The learners demonstrate knowledge and understanding of: 1. d 2. d				
B. Performance Standards	By the end of the quarter, the learners are able to: 1. d 2. d				
C. Teaching Philosophy	To achieve the goals of these lessons, the best teaching philosophies to utilize are constructivism and progressivism.				
D. Learning Competencies	competency	competency	competency	competency	competency
Learning Objectives:	The learner should be able to: a. recognize the concept of b. write the c. participate actively in class discussion.	The learner should be able to: a. recognize the concept of b. write the c. participate actively in class discussion.	The learner should be able to: a. recognize the concept of b. write the c. participate actively in class discussion.	The learner should be able to: a. recognize the concept of b. write the c. participate actively in class discussion.	The learner should be able to: a. recognize the concept of b. write the c. participate actively in class discussion.
II. CONTENT	Multiplying and Dividing Simple Monomials and Deriving the Laws of Exponents	Multiplying Monomials and Binomials Using the Distributive Property	Using Special Product Patterns to Multiply Binomials	Factoring Polynomials with a Common Monomial Factor	Factoring Polynomials as Difference of Two Squares

Republic of the Philippines
Department of Education
National Capital Region
SCHOOLS DIVISION OFFICE QUEZON CITY
SAUYO HIGH SCHOOL
Pantabangan St., NIA Village, Sauyo, Quezon City

III. LEARNING RESOURCES	List the materials to be used in different days. Varied resources of materials sustain children's interest in learning the lesson. Ensure that there is a mix of concrete and manipulative materials as well as paper-based materials. Hands-on learning promotes concept development.				
References					
A. 1. Teacher's Guide	Printed Materials	Printed Materials	Printed Materials	Printed Materials	Printed Materials
2. Learner's Material	Worksheets	Worksheets	Worksheets	Worksheets	Worksheets
3. Textbook	Worksheets	Worksheets	Worksheets	Worksheets	Worksheets
B. Other Learning Resources	Teacher-made exercises	Teacher-made exercises	Teacher-made exercises	Teacher-made exercises	Teacher-made exercises
IV. PROCEDURES					
A. Reviewing Previous Lesson or Presenting New Lesson	Simple recall through Socratic questioning about Adding and Subtracting Simple Monomials.	Simple recall through Socratic questioning about Multiplying and Dividing Simple Monomials and Deriving the Laws of Exponents.	Simple recall through Socratic questioning about Multiplying Monomials and Binomials Using the Distributive Property.	Simple recall through Socratic questioning about Using Special Product Patterns to Multiply Binomials.	Simple recall through Socratic questioning about Factoring Polynomials with a Common Monomial Factor.
B. Motivation	Flashcards: Operations on Integers.	Flashcards: Operations on Integers.	Flashcards: Operations on Integers.	Flashcards: Operations on Integers.	Flashcards: Operations on Integers.
C. Development of the Lesson: Presenting Examples/Instances of the Lesson	The teacher will explain the concepts and procedures in the lesson. **Lesson 1.5: Multiplying and Dividing Simple Monomials and Deriving the Laws of Exponents** **Monomial:** An algebraic expression with only one term. Examples include $4x$, $-3y^2$, and 7. **Multiplying Monomials:** To multiply monomials, multiply the coefficients (numbers) and add the exponents of like bases. For example, $3x^2 \times 2x^3 = 6x^5$. **Dividing Monomials:** To divide monomials, divide the coefficients and subtract the exponents of like bases. For example, $\frac{10x^5}{2x^2} = 5x^3$. **Laws of Exponents:** • $a^m \times a^n = a^{m+n}$ (Product of Powers) • $\frac{a^m}{a^n} = a^{m-n}$ (Quotient of Powers) • $(a^m)^n = a^{mn}$ (Power of a	The teacher will explain the concepts and procedures in the lesson. **Lesson 1.6: Multiplying Monomials and Binomials Using the Distributive Property** **Binomial:** An algebraic expression with two terms. Examples include $x+2$, $3y-5$, and $2a+4b$. **Distributive Property:** A property that allows you to multiply a single term by each term within parentheses. For example, $3(x+4) = 3x+12$. **Multiplying Monomials with Binomials:** Use the distributive property to multiply the monomial by each term in the binomial. For example, $2x(3x+4) = 6x^2+8x$. **Multiplying Binomials with Binomials:** Apply the distributive property twice, or use the FOIL method (First, Outer, Inner, Last) to multiply the terms. For example, $(x+3)(x+2) = x^2+2x+3x+6 = x^2+5x+6$. **Multiplying Binomials with Multi-nomials:** Use the distributive prop-	The teacher will explain the concepts and procedures in the lesson. **Lesson 1.7: Using Special Product Patterns to Multiply Binomials** **Square of a Binomial:** $(a+b)^2 = a^2+2ab+b^2$ $(a-b)^2 = a^2-2ab+b^2$ Example: $(x+3)^2 = x^2+6x+9$ **Product of the Sum and Difference of the Same Terms:** $(a+b)(a-b) = a^2-b^2$ Example: $(x+4)(x-4) = x^2-16$	The teacher will explain the concepts and procedures in the lesson. **Lesson 1.8.1: Factoring Polynomials with a Common Monomial Factor** **Factoring:** the reverse process of getting the product of any number or algebraic expression. **Factoring Polynomials:** describing an algebraic expression as the product of two or more expressions **Common Factor:** a factor that is contained in every term of an algebraic expression **How to Factor a Polynomial with a Common Monomial Factor** 1. Factor out the greatest common monomial of all terms of the given expression. 2. Divide each term of the expression by the greatest common factor. The resulting expression is the other factor.	The teacher will explain the concepts and procedures in the lesson. **Lesson 1.8.2: Factoring Polynomials as Difference of Two Squares** **Perfect Square:** When a polynomial is multiplied by itself, then it is a perfect square. **Difference of Two Squares:** a squared polynomial subtracted from another squared polynomial **Formula:** 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, $a^2-b^2 = (a+b)(a-b)$ or

Developing Mastery	The teacher will demonstrate how to answer the first three items in the Practice Exercises. Some students will be called to show their solutions on the board.	The teacher will demonstrate how to answer the first three items in the Practice Exercises. Some students will be called to show their solutions on the board.	The teacher will demonstrate how to answer the first three items in the Practice Exercises. Some students will be called to show their solutions on the board.	The teacher will demonstrate how to answer the first three items in the Practice Exercises. Some students will be called to show their solutions on the board.	The teacher will demonstrate how to answer the first three items in the Practice Exercises. Some students will be called to show their solutions on the board.
D. Application (Group or Individual Activity)	Seatwork: Answer the remaining items in the Practice Exercises. **Practice Exercises 1.5** Simplify each of the following expressions by multiplying or dividing the monomials. 1. $3x^2 \times 4x^3$ 2. $5y^4 \times 2y^2$ 3. $6a^3 \times 3a$ 4. $8m^5 \times m^2$ 5. $9p^2 \times 2p^3$ 6. $\frac{10x^6}{2x^2}$ 7. $\frac{15y^4}{3y^2}$ 8. $\frac{12a^5}{4a^2}$ 9. $\frac{18m^3}{6m}$ 10. $\frac{20p^7}{5p^3}$	Seatwork: Answer the remaining items in the Practice Exercises. **Practice Exercises 1.6** Simplify each of the following expressions by using the distributive property to multiply the monomials, binomials, or multinomials. 1. $4x(x+5)$ 2. $3y(2y-7)$ 3. $2a(a+3b)$ 4. $5m(2m-4)$ 5. $(x+2)(x+6)$ 6. $(3y-4)(y+2)$ 7. $(2a+5)(a+3b)$ 8. $(4x-3)(2x+7)$ 9. $(x+1)(x^2+2x+3)$ 10. $(2y-5)(y^2+4y+1)$	Seatwork: Answer the remaining items in the Practice Exercises. **Practice Exercises 1.7** Use the special product patterns to simplify the following expressions. 1. $(x+5)^2$ 2. $(y-3)^2$ 3. $(2x+7)^2$ 4. $(3y-4)^2$ 5. $(a+6)^2$ 6. $(m-8)^2$ 7. $(x+4)(x-4)$ 8. $(2y+3)(2y-3)$ 9. $(5a+2)(5a-2)$ 10. $(3m+7)(3m-7)$	Seatwork: Answer the remaining items in the Practice Exercises. **Practice Exercises 1.8.1** 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. $12x^3+9x^2y+6xy^2$ 6. $2x^3-8x^2+4x$ 7. $12x^4+18x^3y+6x^2y^2$ 8. $35x^3-7x^2+14x$ 9. $8y^3z+16y^2z^2+24yz^3$ 10. $18x^3+9x^2y+36xy^2$	Seatwork: Answer the remaining items in the Practice Exercises. **Practice Exercises 1.8.2** 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 6. $16m^8-81b^4$ 7. c^4-1 8. $x^4y^2-36z^6$ 9. x^4y^2-49 10. $16m^4-64$
E. Wrap up 1. Generalization 2. Giving of instructions on students' assigned tasks	Search and study about Multiplying Monomials and Binomials Using the Distributive Property.	Search and study about Using Special Product Patterns to Multiply Binomials.	Search and study about Factoring Polynomials with a Common Monomial Factor.	Search and study about Factoring Polynomials as Difference of Two Squares.	Search and study about Factoring Perfect Square Trinomials.

Republic of the Philippines
Department of Education
National Capital Region
SCHOOLS DIVISION OFFICE QUEZON CITY
SAUYO HIGH SCHOOL
Pantabangan St., NIA Village, Sauyo, Quezon City

F. Evaluation	In a sheet of paper, answer the Activity. **Activity 1.5** Simplify each of the following expressions by multiplying or dividing the monomials. 1. $2x^3 \times 5x^2$ 2. $4y^3 \times 3y^4$ 3. $7a^2 \times 2a^3$ 4. $9m^4 \times 2m^3$ 5. $8p^5 \times p^2$ 6. $\frac{14x^5}{7x^2}$ 7. $\frac{21y^6}{3y^3}$ 8. $\frac{16a^4}{4a}$ 9. $\frac{24m^2}{8m}$ 10. $\frac{30p^8}{10p^4}$	In a sheet of paper, answer the Activity. **Activity 1.6** Simplify each of the following expressions by using the distributive property to multiply the monomials, binomials, or multinomials. 1. $2x(3x+4)$ 2. $5y(4y-6)$ 3. $3a(a+2b)$ 4. $6m(3m-5)$ 5. $(x+3)(x+4)$ 6. $(2y-5)(y+3)$ 7. $(3a+4)(a+2b)$ 8. $(5x-2)(3x+6)$ 9. $(x+2)(x^2+3x+1)$ 10. $(3y-4)(y^2+5y+2)$	In a sheet of paper, answer the Activity. **Activity 1.7** Use the special product patterns to simplify the following expressions. 1. $(x+4)^2$ 2. $(y-2)^2$ 3. $(3x+5)^2$ 4. $(2y-6)^2$ 5. $(a+7)^2$ 6. $(m-9)^2$ 7. $(x+3)(x-3)$ 8. $(3y+2)(3y-2)$ 9. $(4a+1)(4a-1)$ 10. $(5m+6)(5m-6)$	In a sheet of paper, answer the Activity. **Activity 1.8.1** 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. $15x^3+10x^2y+5xy^2$ 6. $6x^4-9x^2+12xy$ 7. $14x^3+7x^4y+49x^2y^3$ 8. $5x^4-15x^2+20xy$ 9. $18y^3z+45y^2z^2+36yz^4$ 10. $12x^4-8x^2+28xy$	In a sheet of paper, answer the Activity. **Activity 1.8.2** Factor the following polynomials completely. 1. $4x^2-49y^2$ 2. a^2-100 3. y^8-16z^4 4. y^4-1 5. $25m^2-9$ 6. $144x^6-100y^4$ 7. a^2b^4-121 8. $x^6y^2-49z^8$ 9. x^2y^4-64 10. $36m^6-81$
H. Reinforcement or Remediation Activity	Assignment: Review the lesson and prepare for seatwork.	Assignment: Review the lesson and prepare for seatwork.	Assignment: Review the lesson and prepare for seatwork.	Assignment: Review the lesson and prepare for seatwork.	Assignment: Review the lesson and prepare for seatwork.
VI. **REMARK/ANNOTATION** (Write a remark every day whether the objectives have been attained or not).	Objectives have been Attained:_____ Not attained due to _____	Objectives have been Attained:_____ Not attained due to _____	Objectives have been Attained:_____ Not attained due to _____	Objectives have been Attained:_____ Not attained due to _____	Objectives have been Attained:_____ Not attained due to _____
REFLECTION of PREVIOUS WEEK's LESSON	reflectionMangahas				

Prepared by:

JUANITO MANGAHAS
Teacher III

Checked by:

LORETO R. DOMINGO, EdD
Master Teacher II, Math

Noted by:

CECILE N. SISON
Head Teacher III, Math

MERYGEE L. JAVIER, PhD
Principal IV