

7

Lesson Exemplar for Mathematics

Quarter 4

Lesson

1

Lesson Exemplar for Mathematics Grade 7
Quarter 4: Lesson 1 (Week 1)
SY 2024-2025

This material is intended exclusively for the use of teachers in the implementation of the MATATAG K to 10 Curriculum during the School Year 2024-2025. It aims to assist in delivering the curriculum content, standards, and lesson competencies. Any unauthorized reproduction, distribution, modification, or utilization of this material beyond the designated scope is strictly prohibited and may result in appropriate legal actions and disciplinary measures.

Borrowed content included in this material are owned by their respective copyright holders. Every effort has been made to locate and obtain permission to use these materials from their respective copyright owners. The publisher and development team do not represent nor claim ownership over them.

Development Team

Writer:

- Maria-Josephine T. Arguilles (Tinajeros National High School)

Validators:

- Clemente M. Aguinaldo Jr. (Philippine Normal University – North Luzon)
- Roldan S. Cardona (Philippine Normal University – North Luzon)

Management Team

Philippine Normal University
Research Institute for Teacher Quality
SiMERR National Research Centre

Every care has been taken to ensure the accuracy of the information provided in this material. For inquiries or feedback, please write or call the Office of the Director of the Bureau of Learning Resources via telephone numbers (02) 8634-1072 and 8631-6922 or by email at blr.od@deped.gov.ph.

I. CURRICULUM CONTENT, STANDARDS, AND LESSON COMPETENCIES

A. Content Standards	The learners should have knowledge and understanding of the solution of simple equations
B. Performance Standards	By the end of the lesson, the learners can solve simple equations. and substitute it into an algebraic expression to evaluate the expression.
C. Learning Competencies and Objectives	The learners can: <ol style="list-style-type: none"> 1. Distinguish a variable from a constant in an algebraic expression. 2. Translate verbal phrases into algebraic expressions. 3. Evaluate algebraic expressions given the value/s of the variables.
D. Content	Algebraic Expression (Weeks 1 & 2)
E. Integration	

II. LEARNING RESOURCES

CK-12 Foundation. (2024, January 11). *Evaluating algebraic expressions and equations*. <https://flexbooks.ck12.org/cbook/ck-12-algebra-ii-with-trigonometry-concepts/section/1.4/primary/lesson/evaluating-algebraic-expressions-and-equations-alg-ii/>

Department of Education. (2020). *Mathematics quarter 2 – module 4: algebraic expressions*. (1).

Khan Academy. (2015, September 12). *What are terms, factors, and coefficients in algebraic expressions?* | 6th grade | Khan Academy. YouTube. https://www.youtube.com/watch?v=9_VCk9tWT0Y

Miacademy Learning Channel. (2021, March 31). *Let's learn about terms, factors, & coefficients [Video]*. YouTube. <https://www.youtube.com/watch?v=pdTmDdKg554>

Miacademy Learning Channel. (2021, April 24). *What's a variable?* YouTube. <https://www.youtube.com/watch?v=70-qzr3x6Ys>

III. TEACHING AND LEARNING PROCEDURE

III. TEACHING AND LEARNING PROCEDURE		NOTES TO TEACHERS
A. Activating Prior Knowledge	DAY 1 1. Short Review <ol style="list-style-type: none"> 1. How does your face look when someone asks you to show a happy expression? 	Since algebraic expressions are new to your students, this activity will help make the abstract concept more concrete

	<p>2. What if someone asked you to give them an algebraic expression — what would you do?</p> <p>2. Feedback (Optional) Like how your facial expression can convey your emotions, a mathematical expression illustrates the value of the variables provided.</p>	<p>and relatable by connecting it to their everyday experiences. Explain that in algebra, expressions are used to represent mathematical relationships and to solve problems.</p>									
B. Establishing Lesson Purpose	<p>1. Lesson Purpose Activity 1: Suppose values are assigned to letters of the alphabet: Example: A = 1, B = 2, C = 3, D = 4, E = 5, F = 6, up to Z = 26</p> <p>Let us find the value of the word MATH. To find the value of the word "MATH" using the given numerical assignments for each letter, we simply sum the values of each letter: $M = 13$ $A = 1$ $T = 20$ $H = 8$ Adding these values together: $M + A + T + H = 13 + 1 + 20 + 8 = 42$</p> <p>2. Unlocking Content Area Vocabulary Activity 2: Algebraic Expression Bingo The goal of the game is to get three squares covered in any of the patterns: horizontally, vertically, or diagonally, or as it may be agreed upon. Materials Needed:</p> <ul style="list-style-type: none"> Bingo cards with 3x3 grid (pre-made or created by the teacher) with each cell containing a word related to an algebraic expression Markers or chips for each student <p>Words used in Bingo Game:</p> <table> <tr> <td>1. Variable</td><td>4. Term</td><td>7. Evaluate</td></tr> <tr> <td>2. Constant</td><td>5. Equation</td><td>8. Polynomial</td></tr> <tr> <td>3. Coefficient</td><td>6. Expression</td><td>9. Like Terms</td></tr> </table> <p>After the game, briefly discuss the terms used.</p>	1. Variable	4. Term	7. Evaluate	2. Constant	5. Equation	8. Polynomial	3. Coefficient	6. Expression	9. Like Terms	<p>Once students have completed the activity, facilitate a discussion to share their findings and experiences.</p> <p>Ask them to compare their answers and if they share the same value.</p> <p>Consider using different patterns for bingo, such as four corners or a blackout (covering the entire grid), to keep the game interesting. This bingo game will familiarize and enhance the students' vocabulary.</p>
1. Variable	4. Term	7. Evaluate									
2. Constant	5. Equation	8. Polynomial									
3. Coefficient	6. Expression	9. Like Terms									

C. Developing and Deepening Understanding

SUB-TOPIC 1: Variable, Constant, and other terms related to Algebraic Expression

1. Explication

A symbol that represents an unknown value is referred to as a **variable**. Symbols like x , y , a , α , β , θ , etc. can be used as variables.

A **constant** is a symbol with exactly one number or a fixed value in its replacement set. Any number is a constant such as 7, 4, and 11. Pi or π is also a constant with an approximate value of 3.14.

Consider the expression, $4x^2 + 3y + 2$. The number 2 is a constant. The letters x and y are the variables. Each distinct part, together with + and – signs in an algebraic expression separated by plus or minus sign is called a **term**.

The numerical factor of a term is called its numerical coefficient and the variable factor of a term is called **the literal coefficient**. In the term $3x^2$, 3 is called the numerical coefficient and x is called the literal coefficient. While the coefficient of 3 is x^2 .

An **algebraic expression** refers to a constant, a variable, or a combination of variables and constant involving a finite number of indicated fundamental operations (addition, subtraction, multiplication, division, evolution or radicals, involution or exponents) in algebra.

Examples of Algebraic Expressions:

$$7, 2x, -3y + 4, 4x - 3yz, \sqrt{4b^2}, \frac{x^2\sqrt{3}}{4} + (xy - 1), \pi r^2$$

A polynomial is an algebraic expression that represents a sum or difference of one or more terms containing whole-number exponents on the variables.

$$\begin{array}{cccc} 5 & 2x & -\frac{5}{4}x + y & -x + \frac{x}{2} \\ \frac{x-z}{4} & x^2 + 4x - 5 & \sqrt{4}x^2 + 2xy & \end{array}$$

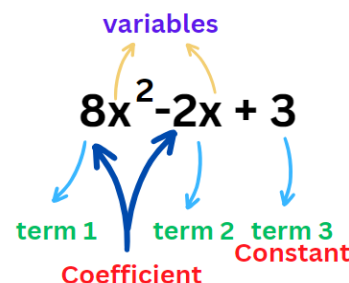
An expression is NOT a polynomial if:

1. The exponent is a negative number, not a whole number or a variable.

Examples: $4x^{-2}$, $x^2y^2 + 3xy^3 + y^{4/3}$, 5^x

2. The variable is in the denominator.

Examples: $\frac{4}{x}$, $\frac{x}{2y}$, $\frac{x-y}{5z}$



The teacher will emphasize important words in algebraic expressions like variables, constants, coefficients, and terms. These words will be used often in the lesson.

The teacher may choose to break down Sub-Topic 1 into separate sessions across different days, especially because it involves introducing new words and concepts that may be unfamiliar to students. This approach allows for more focused learning and gives students time to digest and understand each concept before moving on to the next.

The teacher might find it beneficial to use videos to help students better understand the differences between constants, terms, variables, and coefficients.

Suggested Video:

https://www.youtube.com/watch?v=9_VCk9tWT0Y
<https://www.youtube.com/watch?v=pdTmDdKg554>
<https://www.youtube.com/watch?v=70-qzr3x6Ys>

If a variable with a negative exponent is present in the numerator, then the expression

3. The variable is under the radical sign.

Examples: $\sqrt{4x^3}$, \sqrt{x} , $\sqrt{m+5n}$

The **degree** of a term is the exponent of its variable while the **degree of the polynomial** is the highest degree appearing in any of the terms in that polynomial.

Example: $3x^4 + x^2 - 9x + 7$, the degree of the terms is as follows:

$3x^4$ has degree 4, x^2 has degree 2, $-9x$ has degree 1, and 7 has degree 0.

Since 4 is the highest degree, the degree of the polynomial $3x^4 + x^2 - 9x + 7$ is **degree 4**.

If a term consists of two or more variables, the **degree of a term** is the **sum of the exponents** of the variables.

Example: $xy^2 + 8x^2y^4 - 3y^4$, we have the degree of each term as follows:

xy^2	has degree 3 ($1+2 = 3$)
$8x^2y^4$	has degree 6 ($2+4 = 6$)
$-3y^4$	has degree 4

Since 6 is the highest sum of the exponent from the term, then the **degree is 6**.

Kind of polynomial according to the number of terms

Number of Terms	Kind of Polynomial	Examples
1	Monomial	x , $5y$, $6c$
2	Binomial	$a+b$, $2x-y$, $3x^2-3$, $2(x+y)$, $\frac{m+n}{2}$ by distributive: $2(x+y) = 2x+2y$ $\frac{m+n}{2}$ is equivalent to $\frac{m}{2} + \frac{n}{2}$
3	Trinomial	$a+b+c$, $2(x+y+z)$ by distributive: $2(x+y+z) = 2x+2y+2z$
4 or more	Multinomial	$x^3 + 5x^2 - 4x + 5$

would not be considered a polynomial.

The formula for changing negative exponents to fractions is $a^{-n} = \frac{1}{a^n}$

A whole number starts from 0,1,2,..., which is always positive.

The expression $\sqrt{4}x^2 + 2xy$ might confuse students regarding its classification as a polynomial. Since 4 is a perfect square, $\sqrt{4}$ can also be written as 2. $5x$ is not a polynomial based on the definition.

However, when determining if an expression is a polynomial, it is essential to note that if a number appears solely under the radical sign without involving a variable, the expression remains a polynomial. Therefore, regardless of whether the number 4 is a perfect square, if it appears only under the radical sign and not with a variable, the expression is still considered a polynomial. This part can be done on the next day.

Let the students identify the degree of a polynomial, which is the highest power of the variable

Kinds of polynomials according to its degree

Kind of Polynomials in terms of Degree	Degree	Examples
Constant	0	1,5 or any number
Linear	1	2x, x+1, 3x-2y+3
Quadratic	2	2x ² , x ² -1, 3x ² -2y+3

2. Worked Example

Example for First part of Sub-Topic 1

Example no. 1: The numerical coefficient of in $7xyz$ is _____.

- a. $3z$ c. $7yz$
b. -2 d. 7

Solution: The correct answer is D.

Example no. 2: Which of the following statements is true?

- a. 10 is a constant, z is a variable, and $10z$ is a variable.
b. 2 is a constant, p is a variable, and $2+p$ is a variable.
c. 12 is a constant, m is a variable, and $12+m$ is a constant.
d. 1 is a constant.

Answer: D

Example no. 3: Identify the constant and variables in the given expression:

$$3x + 9$$

Solution: In $3x + 9$, x is the variable and 9 is the constant.

Example no. 4: How many terms are there in the algebraic expression $2x+y-z$?

Answer: There are 3 terms

Example no. 5

Algebraic Expression	Variable	Constant	Numerical Coefficient
5		5	
$3m+7$	m	7	3
$2x^2+5z+3$	x,z	3	2 and 5
$\sqrt{3}+8a$	a	$\sqrt{3}$	8
$\frac{1}{2} - 5y$	y	$\frac{1}{2}$	-5

in the expression. This helps classify polynomials as linear, quadratic, cubic, etc. which is connected and a prerequisite to the next concept. Present the kinds of polynomials in tabular form. Emphasize also the properties of equality if expressions are need to be simplified.

The definition of a multinomial varies depending on the reference used. Some consider 3 or more, some 2 or more terms as multinomial. A multinomial is a polynomial but a polynomial is not always multinomial.

Linear Polynomial (Degree 1):

Emphasize that linear polynomials have a degree of 1, meaning the highest power of the variable is 1. These polynomials represent straight lines when graphed.

Quadratic Polynomial (Degree 2):

Help students understand that quadratic polynomials have a degree of 2, indicating that the highest power of the variable is 2. These polynomials form parabolic curves when graphed.

Constant Polynomial (Degree 0):

Explain that constant polynomials have a degree of 0,

Example no. 6. State whether the following algebraic expressions are polynomials or not. In the affirmative case, indicate its degree and type of polynomial according to the number of terms.

- | | |
|----------------------------|--------------------------------|
| 1. $x^4 - 3x^5 + 2x^2 + 5$ | 6. $x - 2x^{-3} + 8$ |
| 2. $\sqrt{x} + 7x^2 + 2$ | 7. $x^3 - x + \frac{7}{2}$ |
| 3. $1 - x^4$ | 8. $\frac{m}{2} + \frac{n}{2}$ |
| 4. $3x^4 - x - 7$ | 9. $ab^2 - 5$ |
| 5. $x^3 + x^5 + x^2$ | 10. a^{-6} |

Example no. 7. Identify the type of Polynomial according to its degree.

Polynomial	Degree	Type
4x	1	Linear
$3x^2 + 2x$	2	Quadratic
$2m + n + o$	1	Linear
4	0	Constant
$4x - 5x^2 - 3$	2	Quadratic

DAY 2

3. Lesson Activity

Activity 2: (Note: coefficient means numerical coefficient in this activity)

See worksheet for the activity which students will accomplish

Instructions: For each algebraic expression provided below:

- Determine if it is a polynomial.
 - If it is a polynomial, identify its degree and type based on the number of terms.
 - Write "Not a polynomial" if the expression does not meet the criteria.
- $3x^2 + 5x - 2$
 - $2/x + 4x^3$
 - $7x^4 - 2x^2 + x - 5$
 - $\sqrt{x} + 2x^2 - 3$
 - $2x^3y^2 - 5xy + 1$
 - $x^2 + 3x - 4x^2y + 2$
 - $6x^4 - 8x^3 + 2x^2 - x + 4$
 - $\frac{1}{x^2} + 3x - 7$
 - $\sqrt{2xy} + 4xy^2 + 3y^3$
 - $5x^3 - 2x^2y - y^3$

meaning, they contain no variable terms, only a constant value. These polynomials represent horizontal lines when graphed.

Coefficients are multipliers but constants are fixed values. If it were plain 5, then that would be a constant because the expression is unchanging. In $5y$, the 5 becomes a coefficient, a multiplier of a variable.

Answer Key (Example 6):

- Yes, it is a polynomial. Its degree is 5. - polynomial
- No, it is not a polynomial because a variable is under a radical sign.
- Yes, it is a polynomial. Its degree is 4. - binomial
- Yes, it is a polynomial. Its degree is 4. - trinomial
- Yes, it is a polynomial. Its degree is 5. - trinomial
- No, it is not a polynomial. Its degree has a negative.
- Yes, it is a polynomial with a degree of 3. - trinomial
- Yes, it is a polynomial with a degree of 1. - binomial
- Yes, it is a polynomial. Its degree is 2. - binomial
- No, it is not a polynomial. The exponent of the variable is negative.

DAY 3**SUB-TOPIC 2: Translating verbal phrases to algebraic expressions.****1. Explicitation**

Activity 4: See worksheet for the activity which students will accomplish

2. Worked Example

Using operation symbols along with letters and numbers helps us turn verbal phrases into mathematical expressions or algebraic expressions. It's important to connect specific words with their matching math operations. Let's look at some examples below to understand this better.

Verbal Phrases	Algebraic Expression	Verbal Phrases	Algebraic Expression
the sum of m and 8	$m+8$	10 added to c	$c+10$
the difference of m and 8	$m-8$	10 subtracted from c	$c-10$
7 plus a	$7+a$	7 minus a	$7-a$
5 more than t	$t+5$	5 less than t	$t-5$
q increased by p	$q+p$	q decreased by p	$q-p$
11 greater than n	$n+11$	9 take away d	$9-d$
exceeds r by twenty	$r+20$	18 reduced by n	$18-n$
the product of 8 and m	$8m$	The quotient of 8 and m	$\frac{8}{m}$
10 times c	$10c$	10 divided by c	$\frac{10}{c}$
twice x	$2x$	The ratio of 7 to a	$\frac{7}{a}$
one-half of p	$\frac{1}{2}p$	p split into 4 equal parts	$\frac{p}{4}$
7 multiplied by b	$7b$	x divided into 10	$\frac{x}{10}$

Answer Key:

- Variable(s): x, y
Constant(s): -5
Coefficient(s): 3, 7
Term(s): $3x, 7y, -5$
- Variable(s): a, b, c
Constant(s): 2
Coefficient(s): 4, -9
Term(s): $4a^2b, -9c, 2$
- Variable(s): x, y, z
Constant(s):
Coefficient(s): 2, -3, 5
Term(s): $2xy, -3x^2, 5y^2z$
- Variable(s): p, q, r
Constant(s): 10
Coefficient(s): 8, -6
Term(s): $8p, -6q^2r^3, 10$
- Variable(s): m, n
Constant(s): -7
Coefficient(s): -3, 4
Term(s): $-3mn, 4m^2n^2, -7$
- Variable(s): x, y, z
Constant(s): -10
Coefficient(s): $\frac{1}{2}, -3, 7$
Term(s): $\frac{1}{2}x^2, -3xy, 7z, -10$
- Variable(s): a, b, c, d
Constant(s): None
Coefficient(s): 5, -2, 3, -4
Term(s): $5ab, -2bc, 3cd, -4d^2$
- Variable(s): x, y, z
Constant(s): 11
Coefficient(s): 6, 9, -2
Term(s): $6xy, 9x^2, -2y^2z, 11$
- Variable(s): p, q, r
Constant(s): 3
Coefficient(s): -4, 7, -2
Term(s): $-4pq^2, 7r^3, -2p, 3$

Example no. 2

- Twice the difference between y and 4.
Twice means 2 times or simply 2. The phrase "difference between y and 4" implies subtraction, so we subtract 4 from y. Therefore, the translated mathematical phrase is $2(y-4)$.
- One-third of the difference between x and 7.
"One-third" signifies $\frac{1}{3}$. The phrase "difference between x and 7" implies subtraction, so we subtract 7 from x. Therefore, the translated mathematical phrase is $\frac{1}{3}(x-7)$.
- Four times the sum of p and q.
"Four times" means 4. The phrase "sum of p and q" indicates addition, so we add p and q. Therefore, the translated mathematical phrase is $4(p+q)$.

3. Lesson Activity**Activity: Find a Match!**

Your task is to pair each verbal phrase on the box with its corresponding number. Each number corresponds to a letter, which, when correctly matched, will reveal a quotation. Some letters may be used multiple times.

- _____ 1. The sum of a number and three.
- _____ 2. Four times a certain number decreased by one.
- _____ 3. One subtracted from four times a number.
- _____ 4. A certain number decreased by two.
- _____ 5. Four increased by a certain number.
- _____ 6. A certain number decreased by three.
- _____ 7. Three more than a number.
- _____ 8. Twice a number decreased by three.
- _____ 9. A number added to four.
- _____ 10. The sum of four and a number.
- _____ 11. The difference of two and a number.
- _____ 12. The sum of four times a number and three.
- _____ 13. A number increased by three.
- _____ 14. A difference of four times a number and one.
- _____ 15. Twice a number is equal to 4.

A- $x + 3$	B- $3 + 4x$	E- $4 + x$	I- $x + 4$	L- $4x - 1$!- $2x=4$
M- $x - 2$	N- $x - 3$	P- $3 - x$	Q- $2 - x$	R- $2x - 3$	U- $4x + 3$

10. Variable(s): x, y, z
 Constant(s): -11
 Coefficient(s) $2, -5, 9$
 Term(s): $2x^3, -5xy^2z, 9y, -11$

The teacher has the flexibility to adjust the number of items based on students' abilities.

Answer Key:

- Polynomial
Degree: 2
Type: Trinomial
- Not a polynomial
- Polynomial
Degree: 4
Type: Multinomial
- Not a polynomial
- Polynomial
Degree: 5
Type: Trinomial
- Not a polynomial
- Polynomial
Degree: 4
Type: Multinomial
- Not a polynomial
- Not a polynomial
- Polynomial
Degree: 3
Type: Trinomial

See worksheet for the activity.
 Consider organizing the activity as a group task, allowing students to collaborate and discuss their classifications with their peers.

Activity: Translate & Match: Verbal Phrases to Algebraic Expressions Game

Materials Needed:

- Game cards with verbal phrases (printed or written on index cards)
- Game board or playing area (optional)
- Markers or tokens for each player

Instructions:

1. Shuffle the game cards and place them face down on the table or playing area.
2. Each player takes turns drawing a card from the deck.
3. Read the verbal phrase on the card aloud.
4. Using the verbal phrase, mentally or aloud, convert it into an algebraic expression.
5. Players then race to find the matching algebraic expression on a separate set of cards or on the game board.
6. The player who finds the matching algebraic expression first earns a point.
7. Continue playing until all cards have been drawn and matched.
8. The player with the most points at the end of the game wins.

Example Game Cards:

- Verbal Phrase: "The sum of a number and 5." Algebraic Expression: $x+5$
- Verbal Phrase: "Three times the difference between a number and 7." Algebraic Expression: $3(x-7)$
- Verbal Phrase: "Ten less than twice a number." Algebraic Expression: $2x-10$
- Verbal Phrase: "Twice the sum of a number and 4." Algebraic Expression: $2(x+4)$
- Verbal Phrase: "The product of a number and 9 decreased by 6." Algebraic Expression: $9x-6$

After completing the activity, review the classifications as a class and discuss questions and clarifications from students.

Operation	Words
+	plus, increased by, the sum of, more than, equivalent, the same as
-	subtracted by, diminished by, less, decreased by, the difference of
x	times, multiplied by, the product of
÷	ratio of, the quotient of, divided by
=	equal to, equivalent, the same as
≠	not equal to, not the same as
>	greater than, exceeds, is at most
<	less than, is less than or equal to
≤	less than or equal to
≥	greater than or equal to

When guiding students through activities converting verbal phrases into math expressions, urge them to use operation symbols with letters and numbers. Emphasize connecting keywords with their matching mathematical operations.

		<p>Consider organizing the activity as a group task, allowing students to collaborate and discuss their classifications with their peers.</p> <p>Answer Key:</p> <table><tr><td>1.A</td><td>6. N</td><td>11. Q</td></tr><tr><td>2.L</td><td>7. A</td><td>12. U</td></tr><tr><td>3.L</td><td>8. R</td><td>13. A</td></tr><tr><td>4.M</td><td>9. E</td><td>14. L</td></tr><tr><td>5.E</td><td>10. E</td><td>15. !</td></tr></table>	1.A	6. N	11. Q	2.L	7. A	12. U	3.L	8. R	13. A	4.M	9. E	14. L	5.E	10. E	15. !
1.A	6. N	11. Q															
2.L	7. A	12. U															
3.L	8. R	13. A															
4.M	9. E	14. L															
5.E	10. E	15. !															
<p>D. Making Generalizations</p>	<p>1. Learners’ Takeaways</p> <p>Generalization Questions</p> <p>Sub-topic 1: Distinguish a variable from a constant in an algebraic expression:</p> <ul style="list-style-type: none">• How can you identify a variable within an algebraic expression?• Why is it important to differentiate between variables and constants in algebraic expressions?• Can you provide an example of a variable and a constant in each algebraic expression? <p>Sub-topic 2: Translate verbal phrases into algebraic expressions:</p> <ul style="list-style-type: none">• What are the familiar words used in translating verbal phrases into algebraic expressions?• Based on the first question, are these words commonly used in everyday language?• Share with a classmate a simple example of turning a mathematical phrase into an algebraic expression. <p>2. Reflection on Learning</p> <p>After completing the exercises, use this checklist to evaluate your mastery of the objectives of this section.</p> <table><tr><td>I can</td><td>Confidently</td><td>With some Help</td><td>No, I didn’t get it</td></tr><tr><td>Identify terms, coefficients, constants and variables</td><td></td><td></td><td></td></tr></table>	I can	Confidently	With some Help	No, I didn’t get it	Identify terms, coefficients, constants and variables											
I can	Confidently	With some Help	No, I didn’t get it														
Identify terms, coefficients, constants and variables																	

	Identify different types of polynomials according to their degree and number of terms				
	Translate word phrases into algebraic expressions				

IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION		NOTES TO TEACHERS
A. Evaluating Learning	<div>DAY 4</div> <div>1. Formative Assessment</div> <div>I. Tell whether each statement is True or False.</div> <div>_____1. The degree of a binomial is always 2.</div> <div>_____2. The degree of the polynomial $x^2 - x$ is 2.</div> <div>_____3. In the polynomial $x^2 - x + 1$, the coefficient of x is 5.</div> <div>_____4. The degree of the polynomial $3x^2 - 5xy + x^3 + 5$ is 2. _</div> <div>_____5. Every trinomial is of degree 3.</div> <div>II. In the following exercises, list the terms and degrees in the given expression.</div> <div>1. $15x^2+6x+2$</div> <div>2. $11x^2+8x+5$</div> <div>3. $10y^3+y+2$</div> <div>4. $9y^3+y+5$</div> <div>5. $x+y$</div> <div>III. In the following exercises, identify the coefficient of the given term.</div> <div>1. $8a$</div> <div>2. $13m$</div> <div>3. $5r^2$</div> <div>4. $6x^3$</div> <div>5. $11x$</div>	<div>Answer:</div> <div>I.</div> <div>1. False</div> <div>2. True</div> <div>3. False</div> <div>4. False</div> <div>5. False</div> <div>II.</div> <div>1. $15x^2, 6x, 2$ d= 2</div> <div>2. $11x^2, 8x, 5$ d= 2</div> <div>3. $10y^3, y, 2$ d=3</div> <div>4. $9y^3, y, 5$ d=3</div> <div>5. x, y d=1</div> <div>III.</div> <div>1. 8</div> <div>2. 13</div> <div>3. 5</div> <div>4. 6</div> <div>5. 11</div>

Answer:

I.

1. False

2. True

3. False

4. False

5. False

II.

1. $15x^2, 6x, 2$ d= 2

2. $11x^2, 8x, 5$ d= 2

3. $10y^3, y, 2$ d=3

4. $9y^3, y, 5$ d=3

5. x, y d=1

III.

1. 8

2. 13

3. 5

4. 6

5. 11

	<p>IV. Translate the following:</p> <ol style="list-style-type: none"> 1. The sum of a number and nine. 2. Three times a number decreased by four. 3. The product of seven and a number increased by five. 4. Twelve less than twice a number. 5. The quotient of a number and six plus eight. <p>2. Homework (Optional)</p>			<p>IV.</p> <ol style="list-style-type: none"> 1. $x+9$ 2. $3x-4$ 3. $7x+5$ 4. $2x-12$ 5. $x/6+8$
B. Teacher's Remarks	<i>Note observations on any of the following areas:</i>	Effective Practices	Problems Encountered	<p>The teacher may take note of some observations related to the effective practices and problems encountered after utilizing the different strategies, materials used, learner engagement, and other related stuff.</p> <p>Teachers may also suggest ways to improve the different activities explored/lesson exemplar.</p>
	strategies explored			
	materials used			
	learner engagement/ interaction			
	others			
C. Teacher's Reflection	<p><i>Reflection guide or prompt can be on:</i></p> <ul style="list-style-type: none"> ▪ <u>principles behind the teaching</u> <i>What principles and beliefs informed my lesson?</i> <i>Why did I teach the lesson the way I did?</i> ▪ <u>students</u> <i>What roles did my students play in my lesson?</i> <i>What did my students learn? How did they learn?</i> ▪ <u>ways forward</u> <i>What could I have done differently?</i> <i>What can I explore in the next lesson?</i> 			<p>Teacher's reflection in every lesson conducted/facilitated is essential and necessary to improve practice. You may also consider this as an input for the LAC/Collab sessions.</p>