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 16, September 16 – 20, 2019	Quarter	2nd

I. OBJECTIVES	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Learning Competencies/ Objectives:	1. Describe rational equations; 2. Calculate solutions to rational equations; and, 3. Show interest and independence in solving problems.	1. Describe rational equations; 2. Calculate solutions to rational equations; and, 3. Project perseverance and willingness in solving problems.	1. Describe rational equations; 2. Solve solutions to rational equations; and, 3. Demonstrate willingness and enjoyment in solving problems.	1. Distinguish rational equations; 2. Solve solutions to rational equations; and, 3. Demonstrate determination and self-reliance in solving problems.	1. Tell rational equations; 2. Find solutions to rational equations; and, 3. Show willingness and interest in solving problems.
II. CONTENT	SPECIAL PRODUCTS AND FACTORS				
	Systems of Linear Equations in Two Variables	Solving Systems of Linear Equations by Graphing	Solving Systems of Linear Equations by the Substitution Method	Solving Systems of Linear Equations by the Elimination Method	Linear Inequalities in Two Variables
III. LEARNING RESOURCES					
A. References					
1. Teacher's Guide Pages	pp.	pp.	pp. 246–270	pp. 231–238	pp. 239–244
2. Learner's Materials Pages	pp.	pp.	pp. 268–300	pp. 227–233	pp. 234–238
3. Textbook Pages	pp.	pp.	pp. 292–310	pp. 231–237	pp. 238–242
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	**Systems of Linear Equations in Two Variables** **System of Linear Equations:** a. equations that are true for the same pairs of numbers b. the solution is an ordered pair of numbers that satisfies both equations A system of linear equations has: a. only one solution if their graphs intersect at only one point. b. no solution if their graphs do not intersect. c. infinitely many solutions if their graphs coincide. **Kinds of Systems of Linear Equations** 1. Consistent and Dependent Equations: a. has infinitely many solutions b. the slopes of the lines are equal c. the y-intercepts are also equal d. the graphs coincide 2. Consistent and Independent Equations:	**Solving Systems of Linear Equations by Graphing** **Using the Intercept Method** 1. Graph the equations in the same coordinate plane. 2. Determine the coordinates of all the points common to the graphs.	**Solving Systems of Linear Equations by the Substitution Method** Procedures for the Substitution Method 1. Solve for one variable in terms of the other variable in one of the equations. 2. Substitute the value of the variable found in the first step of the second equation. 3. Simplify then solve the resulting equation. 4. Substitute the value obtained to any of the original equations. 5. Check the values of the variables obtained against the linear equations in the system.	**Solving Systems of Linear Equations by the Elimination Method** Procedures for the Elimination Method 1. Rewrite both equations in standard form. 2. Multiply either equation or both equations by a nonzero number so that the coefficients of x or y will have a sum of 0. 3. Add the resulting equations. 4. Simplify then solve the resulting equation. 5. Substitute the value obtained to any of the original equations. 6. Check the values of the variables obtained against the linear equations in the system.	**Linear Inequalities in Two Variables** **Linear Inequality in Two Variables:** an inequality which can be written in any one of the following forms where A, B, and C are any real numbers. The solution of an inequality in two variables are the ordered pairs of numbers that make the inequality true. How to Graph Linear Inequalities in Two Variables 1. Graph the corresponding equation. Use broken line if inequality is not included and a solid line if inequality is included. 2. Choose a point on the plane not on the line and substitute its coordinate in the inequality. 3. If the inequality is satisfied, shade the region containing that point. If not, shade the other region.

B. Establishing a Purpose for the Lesson	The purpose of this lesson is to enable the students to solve real life problems involving rational equations.	The purpose of this lesson is to enable the students to solve real life problems involving rational equations.	The purpose of this lesson is to enable the students to solve real life problems involving rational equations.	The purpose of this lesson is to enable the students to solve real life problems involving rational equations.	The purpose of this lesson is to enable the students to solve real life problems involving rational equations.

C. Discussing New Concepts and Practicing New Skills #1

Practice Exercises

Determine whether each system of linear equations is consistent and dependent, consistent and independent, or inconsistent.

1. $\begin{cases} 2x-y & 7 \\ 3x-y & 5 \end{cases}$
2. $\begin{cases} x-2y & -3 \\ 2x\ y & 6 \end{cases}$
3. $\begin{cases} x-2y & 9 \\ 2x-4y & 18 \end{cases}$
4. $\begin{cases} -3x\ y & 10 \\ 4x\ y & 7 \end{cases}$
5. $\begin{cases} 6x-2y & 8 \\ y & 3x-4 \end{cases}$

Practice Exercises

Find the solutions of the following systems of linear equations graphically.

1. $\begin{cases} x\ y & 12 \\ x-y & 8 \end{cases}$
2. $\begin{cases} 3x\ 6y & 4 \\ 6x\ 12y & 8 \end{cases}$
3. $\begin{cases} 8 & x\ y \\ -4 & x-y \end{cases}$
4. $\begin{cases} x\ y & 3 \\ x\ y & -2 \end{cases}$
5. $\begin{cases} x-8y & 2 \\ 3x-24y & 6 \end{cases}$

Practice Exercises

Solve each system of linear equation using the substitution method.

1. $\begin{cases} x-5y & 4 \\ 2x\ y & 7 \end{cases}$
2. $\begin{cases} 2x\ 3y & -13 \\ 5x-2y & 34 \end{cases}$
3. $\begin{cases} 5x\ 3y & 7 \\ 3x-5y & -23 \end{cases}$
4. $\begin{cases} x\ y & \frac{1}{2} \\ 3x-y & 5 \end{cases}$
5. $\begin{cases} 7(x-y) & 14 \\ 2x\ y & 5 \end{cases}$

Practice Exercises

Solve each system of linear equation using the elimination method.

1. $\begin{cases} 2x\ y & 12 \\ 3x\ y & 17 \end{cases}$
2. $\begin{cases} 3x\ 4y & 4 \\ x-2y & 0 \end{cases}$
3. $\begin{cases} 6x\ 25 & 5y \\ 8x\ 9y & 45 \end{cases}$
4. $\begin{cases} 3x\ 4y & 7 \\ 3x\ 4y & 8 \end{cases}$
5. $\begin{cases} 3x\ 4y & 19 \\ 7x-2y & -1 \end{cases}$

Practice Exercises

A. Identify whether each ordered pair is a solution to the given inequality. Write *YES* if it is and *NO* if it is not.

1. $x\ y \quad -1$
   a. (-1, 2)
   b. (0, 0)
   c. (-3, 2)
2. $2x - y \geq 3$
   a. (2, 1)
   b. (2, 0)
   c. $(\frac{1}{2}, 2)$
3. $3x\ 2y \leq 5$
   a. (4, 2)
   b. $(-\frac{1}{2}, -3)$
   c. (-5, 2)

B. Translate the following situations into mathematical phrases.

1. The sum of two numbers is less than 7.

D. Discussing New Concepts and Practicing New Skills #2					
E. Developing Mastery	**Problem Set** Determine whether each system of linear equations is consistent and dependent, consistent and independent, or inconsistent. 1. $\{\begin{matrix} 8x\ 2y\ 7 \\ y\ -4x\ 1 \end{matrix}$ 2. $\{\begin{matrix} x-2y & 9 \\ x\ 3y & 14 \end{matrix}$ 3. $\{\begin{matrix} x\ 3y & 8 \\ x-3y & 8 \end{matrix}$ 4. $\{\begin{matrix} 2y & 6x-5 \\ 3y & 9x\ 1 \end{matrix}$ 5. $\{\begin{matrix} 3x\ 5y & 15 \\ 4x-7y & 10 \end{matrix}$	**Problem Set** Find the solutions of the following systems of linear equations graphically. 1. $\{\begin{matrix} y & \frac{2}{3}x\ 6 \\ y & -\frac{3}{2}x\ 6 \end{matrix}$ 2. $\{\begin{matrix} x\ y & 7 \\ x-y & 1 \end{matrix}$ 3. $\{\begin{matrix} 4x-y & 8 \\ 3x\ 2y & 6 \end{matrix}$ 4. $\{\begin{matrix} x\ 4y & 8 \\ x-2y & 2 \end{matrix}$ 5. $\{\begin{matrix} x\ y\ 5 \\ y\ 5x\ \frac{1}{2} \end{matrix}$	**Problem Set** Solve each system of linear equation using the substitution method. 1. $\{\begin{matrix} 2x-y & 2 \\ 6x\ 5y & 2 \end{matrix}$ 2. $\{\begin{matrix} x-3y & 1 \\ -2x\ 6y & 5 \end{matrix}$ 3. $\{\begin{matrix} x-3y & 1 \\ -2x\ 6y & -2 \end{matrix}$ 4. $\{\begin{matrix} x\ y & 11 \\ 3x-y & 5 \end{matrix}$ 5. $\{\begin{matrix} 3x\ 4y-3 \\ 3x\ 2y\ 9 \end{matrix}$	**Problem Set** Solve each system of linear equation using the elimination method. 1. $\{\begin{matrix} 2x-3y & 12 \\ 4x\ 3y & 24 \end{matrix}$ 2. $\{\begin{matrix} 5x\ 11 & 7y \\ 8y-18 & 3x \end{matrix}$ 3. $\{\begin{matrix} 3x\ 4y & 7 \\ 2x-2y & 7 \end{matrix}$ 4. $\{\begin{matrix} x\ y\ 1 \\ x-y\ 1 \end{matrix}$ 5. $\{\begin{matrix} 2x\ y & 4 \\ x\ 2y & 4 \end{matrix}$	**Problem Set**
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 rational equations? 2. How can you apply your knowledge of rational equations 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 rational equations? 2. How can you apply your knowledge of rational equations 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 rational equations? 2. How can you apply your knowledge of rational equations 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 rational equations? 2. How can you apply your knowledge of rational equations 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 rational equations? 2. How can you apply your knowledge of rational equations 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, what are rational equations? 2. How do we solve rational equations?	Let the students answer the following questions: 1. In your own words, what are rational equations? 2. How do we solve rational equations?	Let the students answer the following questions: 1. In your own words, what are rational equations? 2. How do we solve rational equations?	Let the students answer the following questions: 1. In your own words, what are rational equations? 2. How do we solve rational equations?	Let the students answer the following questions: 1. In your own words, what are rational equations? 2. How do we solve rational equations?
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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