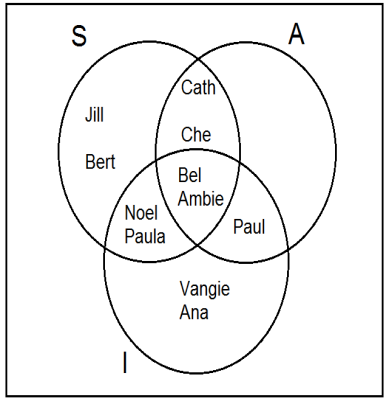
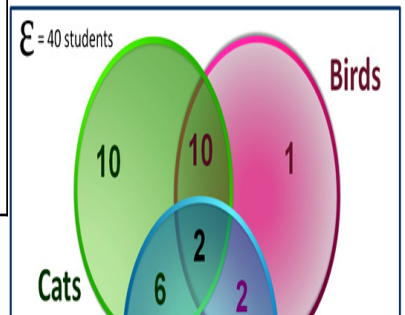
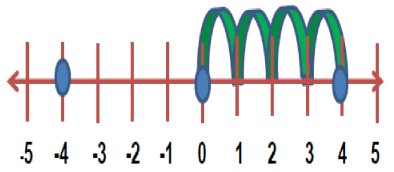
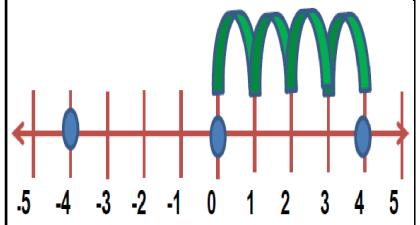
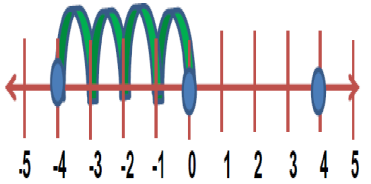
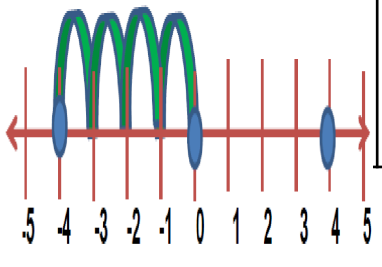
DAILY LESSON LOG	School		Grade Level	7
	Teacher		Learning Area	MATHEMATICS
	Teaching Dates and Time		Quarter	FIRST

	Session 1	Session 2	Session 3	Session 4
I. OBJECTIVES				
1. Content Standards	The learner demonstrates understanding of key concepts of sets and the real number system.			
2. Performance Standards	The learner is able to formulate challenging situations involving sets and real numbers and solve these in a variety of strategies.			
3. Learning Competencies / Objectives				

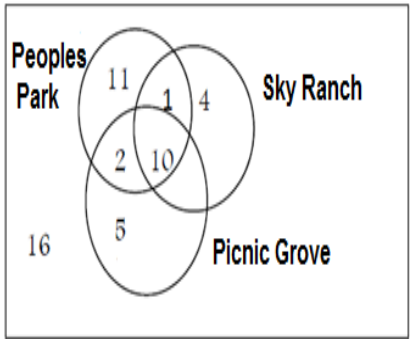
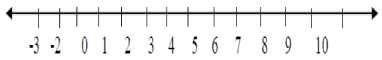
	The learner solves problems involving sets **(M7NS-Ib-2)** a. Solve problems involving sets with the use of Venn diagrams b. Apply set operations to solve a variety of problems c. Appreciate the use of Venn diagram in connection to solving real life problems	The learner solves problems involving sets **(M7NS-Ib-2)** a. Solve word problems involving sets with the use of Venn diagrams b. Apply set operations to solve a variety of problems c. Appreciate the use of Venn diagram in connection to solving real life problems	The learner represents the absolute value of a number on a number line as the distance of a number from 0. **(M7NS-IC-1)** a. Illustrate the absolute value of a number on a number line as the distance of a number from 0. b. Find the absolute value of a number c. Appreciate the value of distance in real life situation	The learner represents the absolute value of a number on a number line as the distance of a number from 0. **(M7NS-IC-1)** a. Identify the symbol of inequality to be used to find absolute value of a number. b. Find the possible values of a number involving absolute value c. Appreciate the value of distance in real life situation
II. CONTENT	**Word Problem Involving Sets**	**Word Problem Involving Sets**	**Absolute Value**	**Absolute Value**
III. LEARNING RESOURCES				
A. References				
1. Teacher's Guide pages				

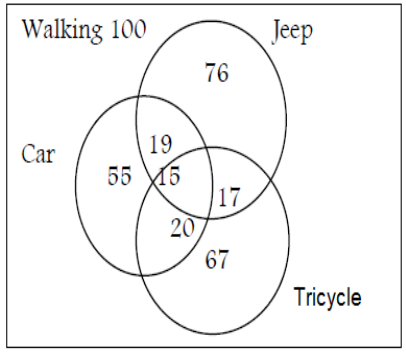
2.	Learner's Materials pages	pp. 14 -18	pp. 14 -18	pp. 70 -75	pp. 70 -75
3.	Textbook pages	- MSA Elem. Algebra pp.4-6. - Grade 7 Mathematics Patterns and Practicalities by Gladys S. Nivera, pp. 22-26	- MSA Elem. Algebra pp.4-6. - Grade 7 Mathematics Patterns and Practicalities by Gladys S. Nivera, pp. 22-26	- Grade 7 Module LM pp. 70-75 - Patterns and Practicalities on G7 Math pp: 68-70 Gladys Nievera - Math Builders 7 pp. 28 – 30 Jisela N. Ulpina & Edna D. Licardo	-Grade 7 Module LM pp. 70-75 - Patterns and Practicalities on G7 Math pp: 68-70 Gladys Nievera - Math Builders 7 pp. 28 – 30 Jisela N. Ulpina & Edna D. Licardo
4.	Additional Materials from Learning Resource (LR) portal	-http://sites.csn.edu/math/ryates/122/course_notes/week04/venn_problems.pdf - http://www.sciencehq.com/math-formulas/set-theory-formulas.html - http://passyworldofmathematics.com/venn-diagram-word-problems/ - http://hanlonmath.com/pdfFiles/Ch.12VennDiagrams.pdf -http://passyworldofmathematics.com/three-circle-venn-diagrams/	-http://sites.csn.edu/math/ryates/122/course_notes/week04/venn_problems.pdf - http://www.sciencehq.com/math-formulas/set-theory-formulas.html - http://passyworldofmathematics.com/venn-diagram-word-problems/ - http://hanlonmath.com/pdfFiles/Ch.12VennDiagrams.pdf -http://passyworldofmathematics.com/three-circle-venn-diagrams/	https://www.google.com.ph/search?biw=800&bih=499&tbm=isch&sa=1&btnG=Search&q=car+#tbm=isch&q=riding+a+bycycle+gir+and+boy+cliparts	https://www.google.com.ph/search?biw=800&bih=499&tbm=isch&sa=1&btnG=Search&q=car+#tbm=isch&q=riding+a+bycycle+gir+and+boy+cliparts
B.	Other Learning Resources	Grade 7 LCTG by DepEd Cavite Mathematics, 2016 Visual aids	Grade 7 LCTG by DepEd Cavite Mathematics, 2016 Visual aids	Grade 7 LCTG by DepEd Cavite Mathematics, 2016 Visual aids	Grade 7 LCTG by DepEd Cavite Mathematics, 2016 Visual aids
IV. PROCEDURES					

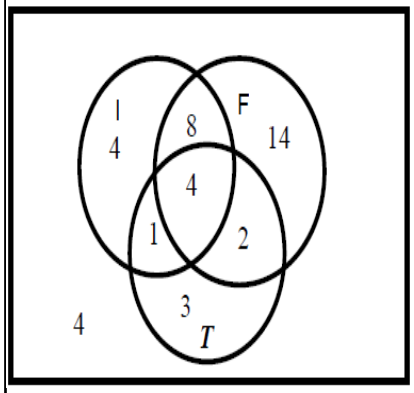
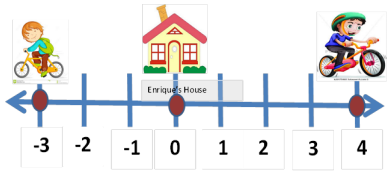
A. Reviewing previous lesson or presenting the new lesson	Ask two students to draw the following sets on the board using Venn Diagram. U = {1,2,3,4,5,6,7} A = {2,4,6,7} B= {1,2,4,5,7}	Use Venn Diagram to answer the given problem. A group of 62 students were surveyed, and it was found that each of the students surveyed liked at least one of the following three fruits: pineapples, bananas, and mangoes. 34 liked pineapples. 30 liked bananas. 33 liked mangoes. 11 liked pineapples and bananas. 15 liked bananas and mangoes. 17 liked pineapples and mangoes. 19 liked exactly two of the following fruits: pineapples, bananas, and mangoes	While the students are seated, ask them about the distance of their classmate if one of them will be the center. Tell that each student is equivalent to 1 unit so that it will be easy to identify the distance from left to right.	Mental Math Give the absolute value of the following: 1. |16| 2. |-67| 3. - |5| 4. - |-20| 5. |46 – 25|
B. Establishing a purpose for the lesson	Guide Questions 1. What set operations did you used to draw the given sets using the Venn Diagram? 2. Give the difference between union and intersection of sets.	Guide Questions a. How many students liked pineapples, but not bananas or mangoes? b. How many students liked mangoes, but not bananas or pineapples? c. How many students liked all of the following three fruits: pineapples, bananas, and mangoes? d. How many students liked	Guide Question Based on the activity, what have you noticed with the distance between your classmate from the left and right? Explain your answer.	Determine whether each statement is true or false. _____1. 5 = |-5| _____2. 16 > |-16| _____3. |-10| < |-11 + 1| _____4. -|-2| < 0 _____5. |5| ≤ -|-8|

		pineapples and mangoes, but not bananas?		
C. Presenting examples/ instances of the lesson	The diagram below shows which brand of phone teachers own. Samsung (S). Asus (A), Iphone (I).  Answer the following: 1. How many people owned a Samsung phone? 2. How many people owned ONLY a Samsung phone? 3. $S \cup A =$ _____ $S \cup A =$ _____ Answer 1. 6 2. 2 3. S U A = {Cath, Che}	Given: A class of 40 students completed a survey on what pets they like. The choices were: cats, dogs, birds. Everyone like at least one pet. 28 students liked cats 19 students liked dogs 15 students liked birds 12 students liked cats and birds 8 students liked cats and dogs 10 students liked cats and birds but not dogs 2 students liked dogs and birds but not cats 2 students liked the three pets Represent these results using three circle Venn Diagram. Solution:  	a. Distance from Ten-ten's house to the school  $\|4\| = 4$ $\|400\| = 400$ meters  $\|-4\| = 4$ $\|400\| = 400$ meters to the church.  $\|-4\| = 4$ $\|400\| = 400$ meters d. Distance from the church  	Examples: 1. Is $\|-9\| \leq \|9\|$? Yes, because $\|-9\|$ and $\|9\| = 9$, therefore $9 \leq 9$. 2. If $\|x\| = 7$, what are the possible values of x? Since $\|-7\| = 7$ and $\|7\| = 7$, then $x = 7$ or $x = -7$.

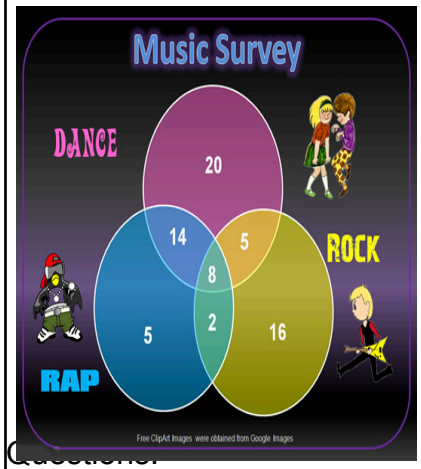
			Notice that while both are equidistant from the house, the two are not located at the same point. The school is 400 meters to the right of Ten – ten's house and vice versa while the church is also 400 meters to the right of the school and vice versa. Illustrative Examples Find the absolute value of the following a. $\|3\|=3$, since 3 is 3 units away from 0. b. $\|0\|=0$, since there is no movement. c. $\|-5\|=5$, since -5 is 5 units away from 0.	
D. Discussing new concepts and practicing new skills #1	Guide Questions Using the same example: 1. How many people owned an Asus phone? 2. How many people owned an Iphone?	Guide Questions: 1. Based on the activity, how will you write the given on the Venn Diagram? 2. Can you think of another	Guide Questions: a.In the given activity how did Ten-ten illustrate absolute value in his assignment? b. What do you call to that	Guide Questions: a.Explain what is meant by the absolute value of a number using example number 2. b.Can you cite some other

	3. How many people owned ONLY a Samsung phone? 4. How many people owned ONLY an Asus phone? 5. I ∩ A = _____ $I \cap A =$ _____ $I \cap A =$ _____	solution for the problem? Justify your answer.	distance from a point 0?value? c.Can you cite some other examples where you can apply the lesson absolute value?	examples where you can apply the lesson absolute value?
E. Discussing new concepts and practicing new skills #2	Given: Three Tourist Spot in Tagaytay  Questions: a. How many of the students went to Peoples Park only? b. How many of the students went to Picnic Grove only? c. How many joined the Sky Ranch trip only? d. How many did not go to any of the tourist spots?	A group of 650 junior high school students went on a field trip to Enchanted Kingdom. They were asked which rides they had ridden. 210 students had ridden the EKstreme Tower, 180 students had ridden the Space Shuttle, 150 had ridden the Rio Grande Rapids.110 ridden the EKstremeTower and Space Shuttle, 80 had ridden the Space Shuttle and Rio Grande Rapids. 70 had ridden the EKstreme Tower and Rio Grande Rapids. 50 of the students had ridden all of the three rides. a. How many of the students had ridden the EKstreme Tower or the Space Shuttle? b. How many students chose other rides and amusements?	Use a number line to find the absolute value of +3, -3, +7, +5,+9,4,-4,-1.  	Fill in the blanks with >, <, or = to make the statements true. 1. |-6| ___ |6| 2. -45 ___ - |-56| 3. |18 – 12| ____ |-10| 4. - |24 – 30| ___ -|30 – 24| 5. 2 + |-4| ____ 10

		c. How many students had ridden the Space Shuttle and Rio Grande Rapids but not the EKstreme Tower?		
F. Developing mastery (Leads to Formative Assessment 3)	The following diagram shows how all the Grade Seven students of San Jose Community High School go to school.  Questions: a. How many students ride in a car, jeep and tricycle going to their school? b. How many students ride in both a car and a jeep? c. How many students ride in both a car and the tricycle? d. How many students ride in both a jeep and the tricycle? e. How many students go to school in car only? a jeep only? in the tricycle only?	Use Venn Diagram to answer the given problem. Routine physical examinations of 400 Grade 7 students revealed that 40 had dental problems, 45 had vision problems, 55 had hearing problems, 15 had dental and vision problems, 15 had dental and hearing problems, 20 had vision and hearing problems, and 10 had dental, vision, and hearing problems. How many of the students had none of the three kinds of problems?	Determine whether each statement is true or false. Justify your answer. _____1. 3 = |-3| _____2. 8 > |-8| _____3. - |-2| < 0 _____4. |5| ≤ - |-8| _____5. |9| ≥ -|9|	Find the integer that satisfies each of the following equations. 1. |x| = 5 2. |y| = -6 3. - |b| = -8 4. 26 = |-y| 5. |a+1| = 7

	walking? f. How many Grade Seven students of San Jose Community High School are there?			
G. Finding practical applications of concepts and skills in daily living	Group Activity A group of students were asked whether they use Facebook, Twitter or Instagram. The diagram shows the number of students using the three social media.  Questions: 1. How many use Facebook only?	Group Activity In a survey students were asked about their favourite subjects. The results are as follows: 132 students like Math 36 students like Math and Science 163 students like Science 38 students like Math and English 73 students like English 22 students like all three subjects 51 students like Science and English Using Venn diagram, determine a. the number of students who like Math only b. Science only c. English only d. the total number of students in the survey.	Solve the problem. *The bicycle joyride of James and Daniel* James and Daniel were at Enrique's house. James rode his bicycle 3 miles west of Enrique's house, and Daniel rode his bicycle 4 miles east of Enrique's house. Who travelled greater distance from Enrique's house Daniel or James? Use the given picture below to prove your answer.  	Find the integers that satisfy each of the following equations. 1. |a| = 0 2. -|-x| = -10 3. - |a+5| = -6 4. - |x – 2| = -9 5. 2 + |2x| = 12

	2. How many use Twitter only? 3. How many use Instagram only? 4. How many use Facebook and Twitter? 5. How many use Facebook and Instagram? 6. How many use Instagram and Twitter? 7. How many use the three social media?			
H. Making generalizations and abstractions about the lesson	Three Circle Venn Diagrams can take a quite a bit of working out. The steps to follow are generally these: a. Get the information from the question that can go straight onto the Venn Diagram and place it there. b. Work through the remaining information, a bit at a time, to work out each of the missing values. c. Often we work from the center of the diagram outwards, when finding	Three Circle Venn Diagrams can take a quite a bit of working out. The steps to follow are generally these: a. Get the information from the question that can go straight onto the Venn Diagram and place it there. b. Work through the remaining information, a bit at a time, to work out each of the missing values. c. Often we work from the center of the diagram outwards, when finding	The absolute value of a number is the distance on the number line between the number and zero without any regard to its direction. Thus, the absolute value of any number is a nonnegative number. For any number *n*, $\lvert n \rvert = \begin{cases} n & \text{if } n \text{ is a positive number} \\ 0 & \text{if } n \text{ is zero} \\ -n & \text{if } n \text{ is a negative number} \end{cases}$	The absolute value of a number is the distance on the number line between the number and zero without any regard to its direction. Thus, the absolute value of any number is a nonnegative number. For any number *n*, $\lvert n \rvert = \begin{cases} n & \text{if } n \text{ is a positive number} \\ 0 & \text{if } n \text{ is zero} \\ -n & \text{if } n \text{ is a negative number} \end{cases}$

	these unknown values. (Work from the Inside Out). d. Check that all the numbers on the final diagram add up to the universal set.	these unknown values. (Work from the Inside Out). d. Check that all the number on the final diagram add up to the universal set.	*Speaking mathematically,* $\|5\| = 5$ is read as "the absolute value of 5 is 5." $\|-5\| = 5$ is read as "the absolute value of negative 5 is 5."	*Speaking mathematically,* $\|5\| = 5$ is read as "the absolute value of 5 is 5." $\|-5\| = 5$ is read as "the absolute value of negative 5 is 5."
I. Evaluating learning	A Music Survey was carried out to find out what types of music a group of people liked. The results were placed into the following three circle Venn Diagram.  Questions: 1. How many people liked	In a survey students were asked about their favorite subjects. The results are as follows: 132 students like Math 36 students like Math and Science 163 students like Science 38 students like Math and English 73 students like English 22 students like all three subjects 51 students like Science and English Using Venn diagram, determine a. the number of students who like Math only b. Science only c. English only d.the total number of	Give an integer which is the simplest value for the expression. 1. $\|24\|$ = _____ 2. $-\|36\|$ = _____ 3. $\|-8\|$ = _____ 4. $-\|-6\|$ = _____ 5. $-\|10\|$ = _____	Find the possible values of n. 1. $\|3n\| > 12$ 2. $\|5n\| < \|-15\|$ 3. $\|n + 1\| < 8$

	rock? 2. How many liked rap only? 3. How many liked the three types of music?	students in the survey.		
J. Additional activities for application or remediation	Use Venn Diagram to answer the given problem. A group of 62 students were surveyed, and it was found that each of the students surveyed liked at least one of the following three fruits: pineapples, bananas, and mangoes. 34 liked pineapples. 30 liked bananas. 33 liked mangoes. 11 liked pineapples and bananas. 15 liked bananas and mangoes. 17 liked pineapples and mangoes. 19 liked exactly two of the following fruits: pineapples, bananas, and mangoes a. How many students liked pineapples, but not bananas or mangoes? b. How many students liked mangoes, but not bananas or pineapples? c. How many students liked	Study the Operations on Integers	Math Journal Read, analyze, and answer. 1. If $\|a\| = -5$, what are the possible values of a? Justify your answer. 2. Explain what is meant by absolute value of a number?	Assignment Critical Thinking Find the possible values of x to make the inequality true. 1. $5 < \|x\| < 10$ 2. $-7 \leq \|x\| \leq 0$

	all of the following three fruits: pineapples, bananas, and mangoes? d. How many students liked pineapples and mangoes, but not bananas?			
V. REMARKS				
VI. REFLECTION				
1. No.of learners who earned 80% on the formative assessment				
2. No.of learners who require additional activities for remediation.				
3. Did the remedial lessons work? No. of learners who have caught up with the lesson.				
4. No. of learners who continue to require remediation				
5. Which of my teaching strategies worked well? Why did these work?				

6.	What difficulties did I encounter which my principal or supervisor can help me solve?				
7.	What innovation or localized materials did I use/discover which I wish to share with other teachers?				