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

	Session 1	Session 2	Session 3	Session 4
I. OBJECTIVES				
1. Content Standards	The learner demonstrates u	ınderstanding of key concepts	, uses and importance of Stat	tistics, data collection/gathering and
2. Performance Standards	The learner is able to collec	t and organize data systematic	cally and compute accurately	measures of central tendency and
3. Learning Competencies/ Objectives	The learner illustrates the measures of variability (range, average deviation, variance, standard deviation) of a statistical data. (M7SP-IVh-1) a. Identify the range of a set. b. Find the range of a grouped and ungrouped data. c. Appreciate the concept of variation in real life situations	The learner illustrates the measures of variability (range, average deviation, variance, standard deviation) of a statistical data. (M7SP-IVh-1) a. Describe the measures of variability in a given set of data. b. Illustrate the different measures of variability of a given grouped data: range, variance, standard deviation c. Appreciate the concept of variation in	The learner calculates the measures of variability of grouped and ungrouped data. (M7SP-IVh-i-1) a. Describe the measures of variability in a given set of ungrouped data. b. Calculate the different measures of variability of a given ungrouped data: range, average deviation c. Appreciate the concept of variation in real life situations	a. Describe the measures of variab. Calculate the different measure. Appreciate the concept of variable.

real life situations.

II. CONTENT	Measures of Variability	Measures of Variability	Measures of Variability of Ungrouped Data	
III. LEARNING RESOURCES				
A. References				
 Teacher's Guide pages 	1		pp 78- 85	pp 78- 85
Learner's Materials pages	er's Material pp. 507- 519	matics Learner's Module G8 page 511- 512	pp 37- 38	pp 38- 39
3. Textbook pages	DepEdMathematics-Grade 8, Advanced Algebra with Trigonometry and Statistics (Third Edition) pp. 161		G-Math Advanced Algebra, Trigonometry, Calculus, Statistics by Magalona, Norlito pp.371- 381	G-Math Advanced Algebra, Trigo
4. Additional Materials from Learning Resource (LR) portal	https://www.youtube.com/watch?v=DsFCi_u1G_8 http://www.mathgoodies.com/lessons/vol8/range.html	http://www.glencoe.com/sit es/pdfs/impact_math/ls9_c	http://tools.atozteacherstuf f.com/word-search-maker/ wordsearch.php	
B. Other Learning Resources / Materials	Grade 7 LCTG by DepdEd Cavite Mathematics 2016, TV, Powerpoint Presentation	Grade 7 LCTG by DepdEd Cavite Mathematics 2016, TV, Powerpoint Presentation	LCD, Laptop, Pictures/Illustrations/Figur es	LCD, Laptop, Pictures/Illustration
IV. PROCEDURES				

A. Reviewing previous lesson or presenting the new lesson	D HUNT ne words you think are related in Statistics F	Find the mean: 1. 3, 8, 8, 8, 8, 9, 9, 9, 9 2. 15, 16, 17 14, 17,11		Identify between the two groups v First Group: 80, 83, 78, 91, 78, Second Group: 76, 94, 76, 85, 89
B. Establishing a purpose for the lesson	https://www.youtube.com/watch?v=DsFCi_u1G_8 ne range: 1. 12, 30, 35, 28, 16 2. 40, 45, 30, 33, 27, 38 3. 60, 78, 30, 45, 65, 72,	h video: //www.khanacademy.org/m ath/cc-sixth-grade-math/c c-6th-data-statistics/cc-6- mad/v/mean-absolute-de viation rer the following questions: 1. How to find the average deviation? 2. What is the formula in finding the average deviation?	THUMBS UP OR THUMBS DOWN? If the statement is correct, do the THUMBS UP. Otherwise, THUMBS DOWN. Justify your answer. 1. If I have a set of numbers 2, 5,3,10 and 5, therefore the mean is 5. 2. 3, 4, 5, 6, 7, 8, 9 and 10, the middle value is 6. 3. The most common measures of variability are	Describe each group in the pre Which between the two groups Would the range and the avera

	- What is the use of range?	3. From the given above, what is the average deviation?	the range, mean, median and mode. 4. Variance and standard deviation are the same. 5. Variation is the amount of dispersion, or "spread" of the values in the set of data.	
C. Presenting examples/		tudents are taking	Consider the scores of	Consider the scores of nine Grade
instances of the	ple no. 1 The following are the	remedial classes. One of their quizzes scores are	nine Grade 7 students of sections Guyabano and	Compute the Variance.
lesson	daily wages of 8 factory	12, 17, 13, 18, 18, 15, 14,	Chico of Naic National	$\sum (x-x)^2 = 358 = 22.70$
	workers of two garment	17, 11. Their teacher	High School. Do the	Guyabano: $\sigma^2 = \frac{2(N - N)}{N} = \frac{330}{9} = \frac{39.78}{9}$
	factories, factory A and	wants to find how the	following procedure.	Chico: $\sigma^2 = \frac{\sum (x - \overline{x})^2}{N} = \frac{288}{9} = 32$
	factory B. Find the range of salaries in Peso (Php).	students' scores scattered.	(See table at attached	Chico: $\sigma^2 = \frac{1}{N} - \frac{1}{9} = \frac{32}{32}$
	Factory A: 400, 450, 520,	To do that he	DLP)	Standard Deviation:(SD)
	380 482, 495, 575, 450	used the average		
	Factory B: 450, 400, 450,	deviation instead of range		$SD = \frac{\left[\Sigma(x - \overline{x})^2\right]^2}{2}$ or $SD = \sqrt{\sigma^2}$
	480, 450, 450, 400, 672 Finding the range of wages:	to get a better approximation and he got	a. Arrange the scores in ascending order.	N SISS V
	- Wage range in - Wage	2.22.	b. Find the mean and	Compute the standard deviation.
	range in B = − Comparing	Based on the	median score of each	Guyabano: SD = $\sqrt{\sigma^2} = \sqrt{39.78} = 6.31$
	the two wages, which	given situation, describe	section. What did you	100
	factory has a more scattered wages? Factory B	how scattered the scores of the students having	observe? *Both sections have the same	Chico: SD = $\sqrt{\sigma^2}$ = $\sqrt{32}$ = $\frac{5.66}{1}$
	Scallered wayes! Facility D	2.22 of average deviation	mean and median.	
	ple no. 2		c. Analyze the spread of	
			the scores of each section	
			from the mean. Which	

To find the range of a group.

s	iency
:s !9	
4	
9	
4	
	= 2

For grouped data, the range is the difference of the boundaries of the highest class interval and the lowest class interval.

Upper Real Limit = 29.5

Lower Real Limit = 4.5

Range = 25

section has scores closer to the mean? *In section Guyabano, the scores vary from 5 to 25, or are more scattered. But in section Chico, the scores are closer to the center of the data.

d. Find the range, average deviation, variance and standard deviation.

Range: R = H − L

Guyabano: R = 25 - 5 = 20Chico: R = 25 - 5 = 20

Average Deviation:

• Compute the mean score. Guyabano: $\bar{x} = 15$ Chico: $\bar{x} = 15$

· Complete the table below.

	Guyabano			Chico		
X	X - x	$(x-\overline{x})^2$	X	X - \(\bar{x}\)	$(x-\overline{x})^2$	
5	-10	100	5	-10	100	
8	-7	49	7	-8	64	
11	-4	16	15	0	0	
12	-3	9	15	0	0	
15	0	0	15	0	0	
17	2	4	17	2	4	
19	4	16	17	2	4	
23	8	64	19	4	16	
25	10	100	25	10	100	

 $\sum (x - \overline{x})^2 = 358$

 $\sum (x - \overline{x})^2 = 288$

deviation from the mean. Find the mean.

			Gugabarro: x̄ = \frac{y_x}{y_x} = \frac{5+8+11+12+15+17+19+23+25}{5+8+11+12+15+17+19+23+25} = \frac{1}{15} \\ Chico: x̄ = \frac{y_x}{y_x} = \frac{5+7+15+15+17+19+23+25}{5+17+19+23+25} = \frac{1}{15} \\ Chico: x̄ = \frac{y_x}{y_x} = \frac{5+7+15+15+17+19+23+25}{5+17+19+23+25} = \frac{1}{15} \\ Chico: x̄ = \frac{y_x}{y_x} = \frac{5+7+15+15+17+17+19+25+25}{5+17+19+23+25} = \frac{1}{15} \\ Chico: x̄ = \frac{y_x}{y_x} = \frac{5+7+15+15+17+17+19+25+25}{5+17+19+23+25} = \frac{1}{15} \\ Chico: x̄ = \frac{y_x}{y_x} = \frac{5+7+15+15+15+17+17+19+25+25}{5+17+19+23+25} = \frac{1}{15} \\ Chico: x̄ = \frac{y_x}{y_x} = \frac{5+7+15+15+15+17+17+19+25+25}{5+17+19+23+25} = \frac{1}{15} \\ Chico: x̄ = \frac{y_x}{y_x} = \frac{1}{15} \\ Chico: x̄ = \frac{y_x}{y_x} = \frac{5+7+15+15+17+17+19+25+25}{5+17+19+23+25} = \frac{1}{15} \\ Chico: x̄ = \frac{y_x}{y_x} = \frac{1}{15} \\ Chico: x̄ = \frac{y_x}{y_x} = \frac{5+7+15+15+15+17+17+19+25+25}{5+17+19+23+25} = \frac{1}{15} \\ Chico: x̄ = \frac{y_x}{y_x} = \frac{5+7+15+15+17+17+19+23+25}{5+17+19+23+25} = \frac{1}{15} \\ Chico: x̄ = \frac{y_x}{y_x} = \frac{y_x}{y_x} = \frac{1}{15} \\ Chico: x̄ = \frac{y_x}{y_x} = \	
D. Discussing new concepts and practicing new skills #1	Find the range. 1. Nine students are taking remedial classes. One of their quizzes scores are 12, 17, 13, 18, 18, 15, 14,	for the following problem: 1. The table shows the maximum speeds of eight roller coasters at an amusement park. Find the mean absolute deviation of	1.Find the range in the given set of data. a. 5, 7, 8, 6 b. 18, 19, 23, 20, 17 c. 77, 76, 74, 73, 72, 70, 75, 71 2. Find the range in the following data. a. 18, 20, 4, 16, 19, 18, 33	Find the variance and standard de 1. a) 10, 16, 12, 15, 9, 16, 10, 17, b) 74, 72, 83, 96, 64, 79, 88, 69

17,	11.	What is	the
ran	ge?		

2. Find the range:

:S	ency
: s)4 ;4 '4	
34	
'4	
i4 i4	
i4	
4	2
34	3

the set of data.

Describe what the mean absolute deviation represents.

Maximum Speeds of Roller Coasters (mph)				
58	88	40	60	
72	66	80	48	

2. The table shows the running time in minutes for two kinds of movies. Find the mean absolute deviation for each set of data. Round to the nearest hundredth. Then write a few sentences comparing their variation.

b. 1, 5, 8, 16, 25, 33, 51
c. 10, 85, 33, 36, 38, 37,
11, 39, 41
3. Find the average
deviation of the following
sets of data.
a. 5, 7, 6, 4, 8
b. 3, 4, 7, 2, 1, 8
c. 55, 63, 84, 57, 65, 77,
78

Running Time for Movies (min)									
Comedy					- 1	Drama	ı		
90	95	88	100	98	115	120	150	135	144

E. Discussing new	the range of an ungrouped	Follow the steps to solve	-		
concepts and practicing new skills #2	data. 1. Distances run by 6 marathon runners; 10km, 15km, 12km, 14km, 8km, 16km 2. Quiz scores in Statistics; 93, 79, 83, 89, 90, 71, 85 the table, find the range of a grouped data. 3. Below are the grades of the students of Grade 7	for the average deviation: 1. Find the mean absolute deviation for each set of data. Round to the nearest hundredth if necessary. Then	compute the range? 2. What is average deviation? How to compute the average deviation.	What is variance? How to core What is standard deviation? It What is the difference among	
	in Math	a. Number of Daily Visitors to a Web Site 112 145 108 160 122			
		Step 1: Find the mean: Step 2: Find the absolute value of the differences between each value in the data set and the mean			
		Step 3: Find the average of the absolute values of			

the differences between each value in the data set

Zoo Admission (Php)

and the mean.

		200 300 270 250 380 340		
		Step 1: Find the mean: Step 2: Find the absolute value of the differences between each value in the data set and the mean Find the average of the absolute values of the differences between each value in the data set and		
		the mean.		
F. Developing mastery (Leads to Formative Assessment 3)	ne range of a grouped and ungrouped data. Race time given in seconds;	er the following problem: 1. The table shows the maximum flying speeds of the ten fastest	Solve the <i>a</i>) range, <i>b</i>) average deviation of each set of ungrouped data. a. Science achievement test scores: 60, 75, 80, 85,	Solve the <i>a)</i> variance, <i>b)</i> standard a. Science achievement test score b. Weights in kg of 10 students: 52
	7.3s, 8.4s, 8.0s, 7.5s, 9.4s, 8.7s, 9.1s 2. In a game, points were won and lost, represented by integers. What is the range of points given below.	birds worldwide. Find the mean absolute deviation of the set of data. Round to the nearest hundredth. Describe what the mean absolute deviation represents. Speeds of Top Ten Fastest Birds (mph)	90, 95 b. Weights in kg of 10 students: 52, 55, 50, 55, 43, 45, 40, 48, 45, 47. c. Diameter (in cm) of balls: 12, 13, 15, 15, 15, 16, 18.	c. Diameter (in cm) of balls: 12, 13
		88 77 65 70 65 72 95 80 106 68	10, 10.	

	3. Given the scores below, find the range			
	es lency 0 -5 -0 35			
G. Finding practical applications of concepts and skills in daily living	Problem #1: Quenie took 7 Math test in one marking period. What is the range of her test scores? 89, 73, 84, 91, 87, 77, 94 Problem #2: Ms. Kaiser listed 9 integers on the blackboard. What is the	Solve the mean deviation of the following: 1. Science achievement test scores: 60, 7, 80, 85, 90, 95 2. The weights in kilogram of 10 students: 52, 55, 50, 55, 43, 45, 40, 48, 45, 47. 3. The diameter (in cm) of balls: 12, 13, 15, 15, 15, 16, 18.	1. Given the following scores of students in a Trigonometry class, compute for the range and mean deviation. (See table at attached DLP)	Who is Smarter? Directions: Given the IQs of 5 me two families has consistent IQ? Family A: 108, 112, 127, 118, 113 Family B: 120, 110, 118, 120, 110

LL Making	of these integers? 14, -12, 7, 0, -5, -8, 17, -11, 19	Arrayan dayiatian giyoo	The mean modian and	
H. Making generalizations and abstractions about the lesson	The range of a set of data is the difference between the largest and the smallest values. It is the size of the smallest interval which contains all the data and provides an indication of statistical dispersion.	Average deviation gives a better approximation than the range. However, it does not lend itself readily to mathematical treatment for deeper analysis.	The mean, median and mode do not adequately give the description of the characteristics of a set of data. To find out how the values are scattered on either side of the central values, variation is needed. Measures of variability are the spread of values about the mean. Smaller dispersion of scores arising from the comparison often indicates more consistency and more reliability. These are the range, average deviation, variance and standard deviation. a. To find the range, get the difference between the largest value and smallest	The mean, median and mode do values, variation is needed. Mea consistency and more reliability. T a. To find the range , get the difference b. To compute the average dev differences and divide it by N. Σ – c. The variance for ungrouped da d. The standard deviation is simple.

			value. R = Highest value – Lowest value b. To compute the average deviation, first, find the mean for all the cases, find the absolute difference between each score and the mean, and lastly, find the sum of the differences and divide it by N.		
I. Evaluating learning	Solve for the range.		Find the range and	Read each item	carefully. Choose
1. Evaluating learning	Corve for the range.	the mean deviation of 2	average deviation of the		re of statistics des
		the following:	following which shows the	a. Mean	b. Median
		Prices of books	6- month electric	c. Mode	d. standard devi
	1. A marathon race	(in pesos): 85,	consumption.	2. If the range of	f a set of scores is
	was completed by	99, 99, 99, 105,		a. 21	b. 24
	5 participants.	105, 120, 150,	(See table at attached	c.14	d. 7
	What is the range	200, 200. 2. Cholesterol level	DLP)	For items 3- 5.	
	of times given in hours below? 2.7 hr, 8.3 hr,	of middle-aged		The scores in ar	n English test of ei
		persons: 147,		3. The range of	the scores in the g
	3.5 hr, 5.1 hr, 4.9 hr	154, 172, 195,		a. 9	b. 18
	, ,	195, 209, 218,		c. 24	d. 33 76
	2. Find the range of	241, 283, 336.		•	d variance in the s
	these distances			a. 48.8	b. 33.9
				c. 55.5	d. 61.75

	www.hov.C.mannether.co			The standard deviation of the a
	run by 6 marathon runners: 10km, 15km, 12km, 14km, 8km, 16km			5. The standard deviation of the g a. 18 b. 16 c. 8.4 d. 7.9
Additional activities	dv.		A Povious	
J. Additional activities for application or remediation	dy: 1. What is average deviation? 2. How to compute for	/-Up: The table shows the height of waterslides at two different water parks.	A. Review 1. Ask your 10 classmates of their height measurements (in cm)	1. Follow-up: Answer each of the following. The
	variance?	Find the mean absolute deviation for each set of data. Round to the	and calculate the range and the average deviation.	Alden: 4, 5, 3, 2, 2, 5, 5, 3, 5, 0 Maine: 5, 4, 4, 3, 3, 1, 4, 0, 5, 5

data. Round to the

	nearest hundredth. Then write a few sentences comparing their variation. Height of Waterslides (ft) Splash Lagoon Wild Water Bay 75 95 80 110 88 120 108 94 135 126	2. Make another set of 10 classmates and find their height. Solve for the range and average deviation.3. Compare the two sets of classmates and	a. Compute the standard deviationb. Which student has the better grc. Which student has the most cor2. Study: Frequency Distribution T
		interpret. B. Study 1. Variance	
		2. Standard Deviation	
V. REMARKS		2.5.2.2.2.3.3.3.	
VI. REFLECTION			
No. of learners who earned 80% on the formative assessment			
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.			

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?		