

GRADE 7 DAILY LESSON LOG	School		Grade Level	7
	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 understanding of key concepts, uses and importance of Statistics, data collection/gathering and the different forms of data representation, measures of central tendency, measures of variability, and probability.			
2. Performance Standards	The learner is able to collect and organize data systematically and compute accurately measures of central tendency and variability and apply these appropriately in data analysis and interpretation in different fields.			
3. Learning Competencies/Objectives	learner calculates the measures of central tendency of ungrouped and grouped data. (M7SP-IVf-g-1) Calculates the measures of Central Tendency of Ungrouped Data Apply the formula for mean, median and mode Show accuracy in doing work	The learner calculates the measures of central tendency of ungrouped and grouped data. (M7SP-IVf-g-1) a. Find the mean of a data set. b. Find or estimate the mean from a frequency table of data. c. Develop logical thinking and correct reasoning.	The learner calculates the measures of central tendency of ungrouped and grouped data. (M7SP-IVf-g-1) a. Find the median of a data set. b. Find or estimate the mean from a frequency table of data. c. Develop logical thinking and correct reasoning.	The learner calculates the measures of central tendency of ungrouped and grouped data. (M7SP-IVf-g-1) a. Find the mode of a data set. b. Find or estimate the mean from a frequency table of data. c. Develop logical thinking and correct reasoning.

II. CONTENT	Measures of Central Tendency of Ungrouped Data	Mean of Grouped Data	Median of Grouped Data	Mode of Grouped Data
III. LEARNING RESOURCES				
A. References				
1. Teacher's Guide pages				
2. Learner's Materials pages	Mathematics Learner's Module 8 Page 491-506			
3. Textbook pages	Advanced Algebra, Trigonometry and Statistics Math IV pages 258 – 267 by Soledad Jose-Dilao, Ed. D. and Fernando B. Orines Statistics and Probability by: Merle S. Alferez and Ma. Cecilia A. Duro pages 35-40	Orines, F. B, Jose – Dilao, S., Bernabe, J.G. Advanced Algebra Trigonometry and Statistics IV. Pp. 270 - 275	Orines, F. B, Jose – Dilao, S., Bernabe, J.G. Advanced Algebra Trigonometry and Statistics IV. Pp. 260 – 270	Orines, F. B, Jose – Dilao, S., Bernabe, J.G. Advanced Algebra Trigonometry and Statistics IV. Pp. 260 – 270
4. Additional Materials from Learning Resource (LR) portal	Grouped data: www.youtube.com/watch?v=QzcgSCmWcVo			
B. Other Learning Resources / Materials	Grade 7 LCTG by DepEd Cavite Mathematics, 2016	Grade 7 LCTG by DepEd Cavite Mathematics, 2016	Grade 7 LCTG by DepEd Cavite Mathematics, 2016	Grade 7 LCTG by DepEd Cavite Mathematics, 2016
IV. PROCEDURES				

A. Reviewing previous lesson or presenting the new lesson	The students will conduct a survey to one another. They shall ask their classmates one by one of the most preferred social networking site they use now a days. These are the following: <table><tr><td>Social Networking Site</td><td>Frequency</td></tr><tr><td>Facebook</td><td></td></tr><tr><td>Instagram</td><td></td></tr><tr><td>Twitter</td><td></td></tr><tr><td>Snapchat</td><td></td></tr><tr><td>Viber</td><td></td></tr></table> After this, they will answer the questions given by the teacher. 1. Arrange the data in order 2. Get the average 3. Get the middle data 4. Which number appeared the most	Social Networking Site	Frequency	Facebook		Instagram		Twitter		Snapchat		Viber		Calculate the mean of the ungrouped data. 2, 2, 4, 5, 9, 8, 7, 5, 3, 1, 2, 1, 1	Calculate the median of the ungrouped data. 2, 2, 4, 5, 9, 8, 7, 5, 3, 1, 2, 1, 1	From the words “TAGAYTAY CITY SCIENCE NATIONAL HIGH SCHOOL” which letter appears most?
Social Networking Site	Frequency															
Facebook																
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Twitter																
Snapchat																
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B. Establishing a purpose for the lesson	1. How will you arrange the data?	How will you find the mean of the given data if	How will you find the median of the given data if	How will you find the mode of the given data if												

	2. Can you formulate an equation to get the average? 3. How will you find the middle data? 4. What is the highest repeating number?	the number of data is very large? How will you organize the data?	the number of data is very large? How will you organize the data?	the number of data is very large?																																																																																							
C. Presenting examples/ instances of the lesson	Watch the video clips on how to calculate mean, median and mode of a certain data. www.youtube.com/watch?v=QzcgSCmWcVo	Calculate the mean grade of 50 students in Elementary Algebra. <table><thead><tr><th>Class Interval</th><th>f</th><th>X (midpoint)</th></tr></thead><tbody><tr><td>90-94</td><td>7</td><td>92</td></tr><tr><td>85-89</td><td>13</td><td>87</td></tr><tr><td>80-84</td><td>16</td><td>82</td></tr><tr><td>75-79</td><td>8</td><td>77</td></tr><tr><td>70-74</td><td>6</td><td>72</td></tr><tr><td></td><td>n=50</td><td></td></tr></tbody></table> A. How can we get the mean of the given data? B. What are the differences and similarities of the steps in getting the mean of ungrouped and grouped data?	Class Interval	f	X (midpoint)	90-94	7	92	85-89	13	87	80-84	16	82	75-79	8	77	70-74	6	72		n=50		Calculate the median of the score of students in four Elementary Algebra classes of Mrs. Magsino. <table><thead><tr><th>Frequency</th><th>Midpoints</th><th>Cumulative frequency</th></tr></thead><tbody><tr><td></td><td></td><td>100</td></tr><tr><td>5</td><td>94.5</td><td></td></tr><tr><td>11</td><td>89.5</td><td>95</td></tr><tr><td>17</td><td>84.5</td><td>84</td></tr><tr><td>25</td><td>79.5</td><td>67</td></tr><tr><td>20</td><td>74.5</td><td>42</td></tr><tr><td>12</td><td>69.5</td><td>22</td></tr><tr><td>7</td><td>64.5</td><td>10</td></tr><tr><td>3</td><td>59.5</td><td>3</td></tr><tr><td>n=100</td><td></td><td></td></tr></tbody></table>	Frequency	Midpoints	Cumulative frequency			100	5	94.5		11	89.5	95	17	84.5	84	25	79.5	67	20	74.5	42	12	69.5	22	7	64.5	10	3	59.5	3	n=100			Calculate the mode of the score of students in four Elementary Algebra classes of Mrs. Magsino. <table><thead><tr><th>Frequency</th><th>Midpoints</th><th>Cumulative frequency</th></tr></thead><tbody><tr><td></td><td></td><td>100</td></tr><tr><td>5</td><td>94.5</td><td></td></tr><tr><td>11</td><td>89.5</td><td>95</td></tr><tr><td>17</td><td>84.5</td><td>84</td></tr><tr><td>25</td><td>79.5</td><td>67</td></tr><tr><td>20</td><td>74.5</td><td>42</td></tr><tr><td>12</td><td>69.5</td><td>22</td></tr><tr><td>7</td><td>64.5</td><td>10</td></tr><tr><td>3</td><td>59.5</td><td>3</td></tr><tr><td>n=100</td><td></td><td></td></tr></tbody></table>	Frequency	Midpoints	Cumulative frequency			100	5	94.5		11	89.5	95	17	84.5	84	25	79.5	67	20	74.5	42	12	69.5	22	7	64.5	10	3	59.5	3	n=100		
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D. Discussing new concepts and practicing new skills #1	1. What do you think is the measures of central tendency all about? 2. What are the measurement shown in the video? 3. How will you describe the results shown in the video?	Given the following frequency table, calculate the mean.	Calculate the median of Mid-year test score of students in Filipino.	Calculate the mode of Mid-year test score of students in Filipino.																																																																																							

	4. What is the formula in finding those measures?	<table><tr><th>Class boundaries</th><th>Frequency</th></tr><tr><td>34 - 36</td><td>2</td></tr><tr><td>31 - 33</td><td>2</td></tr><tr><td>28 - 30</td><td>6</td></tr></table> <table><tr><td>25 - 27</td><td>47</td></tr><tr><td>22 - 24</td><td>70</td></tr><tr><td>19 - 21</td><td>40</td></tr><tr><td>16 - 18</td><td>5</td></tr><tr><td>i=3</td><td>n = 172</td></tr></table>	Class boundaries	Frequency	34 - 36	2	31 - 33	2	28 - 30	6	25 - 27	47	22 - 24	70	19 - 21	40	16 - 18	5	i=3	n = 172	<table><tr><th>ORE</th><th>FREQUENCY</th></tr><tr><td>1-45</td><td>1</td></tr><tr><td>5-40</td><td>8</td></tr><tr><td>1-35</td><td>8</td></tr><tr><td>5-30</td><td>14</td></tr><tr><td>1-25</td><td>7</td></tr><tr><td>5-20</td><td>2</td></tr></table>	ORE	FREQUENCY	1-45	1	5-40	8	1-35	8	5-30	14	1-25	7	5-20	2	<table><tr><th>ORE</th><th>FREQUENCY</th></tr><tr><td>1-45</td><td>1</td></tr><tr><td>5-40</td><td>8</td></tr><tr><td>1-35</td><td>8</td></tr><tr><td>5-30</td><td>14</td></tr><tr><td>1-25</td><td>7</td></tr><tr><td>5-20</td><td>2</td></tr></table>	ORE	FREQUENCY	1-45	1	5-40	8	1-35	8	5-30	14	1-25	7	5-20	2
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E. Discussing new concepts and practicing new skills #2	Sections: Ungrouped Data Calculate the measures of central tendency of the following. 1. A researcher collects data on the ages of recipients of doctoral degree in science and engineering, and his study yields the following. <table><tr><td>37</td><td>37</td><td>24</td><td>28</td><td>43</td><td>4</td></tr><tr><td>36</td><td>41</td><td>33</td><td colspan="3">27</td></tr></table> Find the mean. Solution: The mean is determined by the sum of the ages and then dividing by the total number of recipients.	37	37	24	28	43	4	36	41	33	27																																							
37	37	24	28	43	4																																													
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$$\bar{x} = \frac{\sum x}{n}$$

Where: $\sum x$ - sum of the item values

n - number of items

mean =

$$\frac{37+37+24+28+43+44+36+41+33+27}{10}$$

$$\bar{x} = \frac{350}{10} = 35$$

therefore, then = 35.

ten mothers were selected and given a blood pressure check. Their systolic pressures were recorded below.

135	21	119	116	1
130	21	131		

Find their median.

Solution: Arrange the data in increasing order

116	119	121	121
130	131	135	

Select the middle value.

Therefore the median is

121.

2. Eight novels were randomly selected and the numbers of pages were recorded as follows:

415	398	402	400
420	415	407	425

Find the median.

Solution: Arrange the data in ascending order.

398	400	402	407
415	415	420	425

Since the middle point falls halfway between 407 and 415, find the median by getting the mean of these two values.

$$\text{Median} = \frac{407 + 415}{2} = 411$$

$\frac{407 + 415}{2} = 411$, therefore the median is **411**

The sizes of 15 classes selected at random are:

40	39	42	48
45	46	42	49
43	42	41	44

	<table><tr><td>38</td><td>42</td><td>47</td><td></td></tr></table> nd the mode. lution: Arrange the data in order. <table><tr><td>38</td><td>39</td><td>40</td><td>41</td><td>42</td></tr><tr><td>42</td><td>42</td><td>42</td><td>43</td><td>44</td></tr><tr><td>45</td><td>46</td><td>47</td><td>48</td><td>49</td></tr></table> e mode is 42 because it is the measure that occurs the most number of times.	38	42	47		38	39	40	41	42	42	42	42	43	44	45	46	47	48	49																														
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F. Developing mastery (Leads to Formative Assessment 3)	A. Directions: UNGROUPE DATA: Arrange in increasing order and calculates the mean, median and mode/s of each of the following sets of data. 1. 5, 6, 6, 4, 8 2. 3,5, 6, 7, 4 3. 1, 3, 2, 5, 9, 1, 7, 6, 6, 8 4. 5, 6, 0, 6, 8, 2, 9, 4, 6, 8, 2, 3 5. 10, 10, 12, 14, 15, 9, 13, 13, 12	GROUPED DATA: Calculate the mean of the given data. 1. The following table gives the frequency distribution of the number of orders received each day during the past 50 days at TCSNHS – Canteen. <table><tr><th>Number of order</th><th>Frequency</th></tr><tr><td>19-21</td><td>14</td></tr><tr><td>16-18</td><td>20</td></tr><tr><td>13-15</td><td>12</td></tr><tr><td>10-12</td><td>4</td></tr></table>	Number of order	Frequency	19-21	14	16-18	20	13-15	12	10-12	4	Calculate the median of the weight of Grade 7 – Narra students. <table><tr><th>Weight in kg</th><th>Frequency</th></tr><tr><td>75-79</td><td>1</td></tr><tr><td>70-74</td><td>4</td></tr><tr><td>65-69</td><td>10</td></tr><tr><td>60-64</td><td>14</td></tr><tr><td>55-59</td><td>21</td></tr><tr><td>50-54</td><td>15</td></tr><tr><td>45-69</td><td>14</td></tr><tr><td>40-44</td><td>1</td></tr></table>	Weight in kg	Frequency	75-79	1	70-74	4	65-69	10	60-64	14	55-59	21	50-54	15	45-69	14	40-44	1	Calculate the mode of the weight of Grade 7 – Narra students. <table><tr><th>Weight in kg</th><th>Frequency</th></tr><tr><td>75-79</td><td>1</td></tr><tr><td>70-74</td><td>4</td></tr><tr><td>65-69</td><td>10</td></tr><tr><td>60-64</td><td>14</td></tr><tr><td>55-59</td><td>21</td></tr><tr><td>50-54</td><td>15</td></tr><tr><td>45-69</td><td>14</td></tr><tr><td>40-44</td><td>1</td></tr></table>	Weight in kg	Frequency	75-79	1	70-74	4	65-69	10	60-64	14	55-59	21	50-54	15	45-69	14	40-44	1
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G. Finding practical applications of concepts and skills in daily living	A. Direction: UNGROUPED DATA : Calculate the mean, median and mode/s of the following. 1. Given scores in Algebra Quiz: 18, 20, 22, 15, 16, 12, 17, 21, 10 2. The library logbook shows that 56, 60, 54, 35, and 97 books, respectively, were borrowed from Monday to Friday last week. 3. Berna's scores in 10 quizzes during the third quarter are 8, 7, 6, 10, 9, 5, 9, 6, 10 and 7. 4. The sizes of 15 families in chosen			

	barangay in Tagaytay City at random are as follows: 8,7, 4, 6, 12, 6, 7, 6, 8, 10, 7, 8, 5, 3, 4 5. The grades of 10 selected students in Mathematics of TCSNHS are 85, 82, 85, 86, 81, 79, 80, 78, 86, 88.			
H. Making generalizations and abstractions about the lesson	MEASURE OF CENTRAL TENDENCY Mean – (Arithmetic mean) is the average of a set of data which is affected by extremely high or low scores. To find the mean of an ungroup data, use the formula: $\bar{X} = \frac{\sum x}{n}$ Where: $\sum x$ - sum of the item values n - number of items Median – The median of a data set illustrates the middle value when the set is ordered in ascending or descending. The median is an	To find the mean of group data, use the formula: $\bar{X} = \frac{\sum fx}{n}$ Where: f - frequency of the class interval x - midpoint of the class interval (presumed to be the mean of the values grouped under this interval)	To find the median of a grouped data, use the formula: $Md = L + \left(\frac{\frac{n}{2} - F}{f} \right) i$ Where: L – exact lower limit of the median class n – total number of items F – “less than” or “equal to” cumulative frequency preceding the class interval containing the median f – frequency of the median class i – size of the class interval	To find the mode of a grouped data use the formula: $Mo = L_{mo} + \left(\frac{d_1}{d_1 + d_2} \right) i$ Where: L_{mo}- the exact lower limit of the modal class D_1– the difference between the frequency of the modal class and that of the frequency below the modal class D_2– the difference between the frequency of the modal class and that of the frequency above the modal class

	average of two middle values if a data set contains even number of values. The median will either be a specific value or will fall between two values. Mode –is the measure or value which occurs most frequently (repeated) in a set of data. It is the value with the greatest frequency. In other words the highest repetition of a same number in a data set is considered to be mode for a data set. The data set doesn't have the mode when each number in a data set occurs in the same number of time.			i – the size of the class interval																																																												
I. Evaluating learning	A. Direction : UNGROUPED DATA. Calculate the mean, median, and mode/s of the following. 1. The scores received by Leo and Berna in 10 quizzes in Math are as follows: <table><tr><td></td><td></td><td></td><td></td><td>2</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td>3</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>					2						3														Below are the scores of 65 students in a Mathematics test. Calculate the mean of the given data. <table><tr><th>Score</th><th>Frequency</th></tr><tr><td>55-58</td><td>2</td></tr><tr><td>51-54</td><td>4</td></tr><tr><td>47-50</td><td>5</td></tr><tr><td>43-46</td><td>6</td></tr><tr><td>39-42</td><td>10</td></tr><tr><td>35-38</td><td>13</td></tr><tr><td>31-34</td><td>8</td></tr></table>	Score	Frequency	55-58	2	51-54	4	47-50	5	43-46	6	39-42	10	35-38	13	31-34	8	The following table gives the frequency distribution of the number of orders received each day during the past 50 days at TCSNHS – Canteen. <table><tr><th>Number of order</th><th>Frequency</th></tr><tr><td>19-21</td><td>14</td></tr><tr><td>16-18</td><td>20</td></tr><tr><td>13-15</td><td>12</td></tr><tr><td>10-12</td><td>4</td></tr></table> Find the median of the data above.	Number of order	Frequency	19-21	14	16-18	20	13-15	12	10-12	4	The following table gives the frequency distribution of the number of orders received each day during the past 50 days at TCSNHS – Canteen. <table><tr><th>Number of order</th><th>Frequency</th></tr><tr><td>19-21</td><td>14</td></tr><tr><td>16-18</td><td>20</td></tr><tr><td>13-15</td><td>12</td></tr><tr><td>10-12</td><td>4</td></tr></table> Find the mode of the data above.	Number of order	Frequency	19-21	14	16-18	20	13-15	12	10-12	4
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	2. The grades of Grade 7 student in nine subjects are 87, 81, 86, 85, 81, 86, 83, 82, 80 3. Julia Andrei Aala timed 21 people in the Tagaytay Fun Run 2016, to the nearest second: 59, 65, 61, 53, 55, 60, 70, 64, 56, 58, 58, 62, 62, 68, 59, 65, 56, 59, 68, 61, 67 4. In a English class, 10 test scores were randomly selected, and the following results were obtained: 73 77 77 71 68 65 77 67 66 5. In a test, subjects estimate the (in DECBE of sound, their results are as			
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	215 308 225 236 272 300 254 260 332			
d. Additional activities for application or remediation	he mean, median and mode/s 3 4 4 7 B. 0 2 8 6 3 6 5 7 5 5 9 4 o find the mean, mode and median of grouped data?	Follow – up Activity: 1. What are the steps in solving for the mean of grouped data? Study: 1. Median of Grouped Data	Follow-up Activity 2. What are the steps in solving for the median of grouped data? Study: 1. Mode of Grouped Data	Follow-up Activity 1. What are the steps in solving for the mode of grouped data? Study: 1. Measures of Variability
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?				