

DAILY LESSON LOG OF M7SP-IVh-1 (Week Seven-Day 3)

School		Grade Level	Grade 7																											
Teacher		Learning Area	Mathematics																											
Teaching Date and Time		Quarter	Fourth																											
I. OBJECTIVES	Objectives must be met over the week and connected to the curriculum standards. To meet the objectives, necessary procedures must be followed and if needed, additional lessons, exercises and remedial activities may be done for developing content knowledge and competencies. These are assessed using Formative Assessment Strategies. Valuing objectives support the learning of content and competencies and enable children to find significance and joy in learning the lessons. Weekly objectives shall be derived from the curriculum guides.																													
A. 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.																													
B. 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.																													
C. Learning Competencies/ Objectives	Learning Competency: Calculates the measures of variability of grouped and ungrouped data. <b>(M7SP-IVh-1)</b> Learning Objectives: <div><div>1. Define terms related to measures of variability.</div><div>2. Calculates the measures of variability (range and standard deviation) of grouped data.</div><div>3. Demonstrate appreciation on the importance of the measures of variability.</div></div>																													
II. CONTENT	Measures of Variability																													
III. LEARNING RESOURCES	Grade 8 Teacher’s Guide and Learner’s Module																													
A. References																														
1. Teacher’s Guide	Pages																													
2. Learner’s Materials	Pages 542 – 551																													
3. Textbook pages																														
4. Additional Materials from Learning Resource (LR) portal																														
B. Other Learning Resources																														
IV. PROCEDURES	These steps should be done across the week. Spread out the activities appropriately so that pupils/students will learn well. Always be guided by demonstration of learning by the pupils/ students which you can infer from formative assessment activities. Sustain learning systematically by providing pupils/students with multiple ways to learn new things, practice the learning, question their learning processes, and draw conclusions about what they learned in relation to their life experiences and previous knowledge. Indicate the time allotment for each step.																													
A. Review previous lesson or presenting the new lesson	<div>The teacher lets the students complete the table: Using the data of the Arts and Craft Shop</div> <table><tr><td>Amount in pesos</td><td>Days (f)</td><td>Midpoint (x)</td></tr><tr><td>172 – 180</td><td>3</td><td></td></tr><tr><td>163 – 171</td><td>5</td><td></td></tr><tr><td>154 - 162</td><td>9</td><td></td></tr><tr><td>145 – 153</td><td>12</td><td></td></tr><tr><td>136 – 144</td><td>5</td><td></td></tr><tr><td>127 – 135</td><td>4</td><td></td></tr><tr><td>118 - 126</td><td>2</td><td></td></tr><tr><td></td><td>n = _____</td><td></td></tr></table> <div>Possible answer of the table:</div>			Amount in pesos	Days (f)	Midpoint (x)	172 – 180	3		163 – 171	5		154 - 162	9		145 – 153	12		136 – 144	5		127 – 135	4		118 - 126	2			n = _____	
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B. Establishing a purpose for the lesson	The teacher lets the students realize that there is a need to find the midpoint because this is needed when we compute for the standard deviation of the data.																																																																								
C. Presenting examples/ instances of the new lesson	<p>Let the students perform the following steps:</p> <p>To find the mean of a grouped data follow the following steps:</p> <ol style="list-style-type: none"><li>1. Prepare the frequency distribution with appropriate class intervals and write the corresponding frequency (f).</li><li>2. Get the midpoint (x) of each class interval.</li><li>3. Multiply frequency (f) and midpoint (x) of each interval to get fx.</li><li>4. Add fx of each interval to get <math>\sum fx</math>.</li><li>5. Compute the mean <math>\bar{x}</math> by using <math>\bar{x} = \frac{\sum fx}{n}</math></li></ol> <p>Let the students follow the steps to find the mean of the data:</p> <table><tr><th>Amount in pesos</th><th>Days (f)</th><th>Midpoint (x)</th><th>fx</th></tr><tr><td>172 – 180</td><td>3</td><td>176</td><td></td></tr><tr><td>163 – 171</td><td>5</td><td>167</td><td></td></tr><tr><td>154 - 162</td><td>9</td><td>158</td><td></td></tr><tr><td>145 – 153</td><td>12</td><td>149</td><td></td></tr><tr><td>136 – 144</td><td>5</td><td>140</td><td></td></tr><tr><td>127 – 135</td><td>4</td><td>131</td><td></td></tr><tr><td>118 - 126</td><td>4</td><td>122</td><td></td></tr><tr><td></td><td>n = _____</td><td></td><td></td></tr></table> <p>Possible answer of the students:</p> <table><tr><th>Amount in pesos</th><th>Days (f)</th><th>Midpoint (x)</th><th>fx</th></tr><tr><td>172 – 180</td><td>3</td><td>176</td><td>528</td></tr><tr><td>163 – 171</td><td>5</td><td>167</td><td>167</td></tr><tr><td>154 - 162</td><td>9</td><td>158</td><td>158</td></tr><tr><td>145 – 153</td><td>12</td><td>149</td><td>149</td></tr><tr><td>136 – 144</td><td>5</td><td>140</td><td>140</td></tr><tr><td>127 – 135</td><td>4</td><td>131</td><td>131</td></tr><tr><td>118 - 126</td><td>4</td><td>122</td><td>122</td></tr><tr><td></td><td>n = 40</td><td></td><td><math>\sum fx = 6041</math></td></tr></table> $\bar{x} = \frac{\sum fx}{n} = \frac{6041}{40} = 151.03 \text{ or } 151$	Amount in pesos	Days (f)	Midpoint (x)	fx	172 – 180	3	176		163 – 171	5	167		154 - 162	9	158		145 – 153	12	149		136 – 144	5	140		127 – 135	4	131		118 - 126	4	122			n = _____			Amount in pesos	Days (f)	Midpoint (x)	fx	172 – 180	3	176	528	163 – 171	5	167	167	154 - 162	9	158	158	145 – 153	12	149	149	136 – 144	5	140	140	127 – 135	4	131	131	118 - 126	4	122	122		n = 40		$\sum fx = 6041$
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D. Discussing new concepts and practicing new skills #1	<p>The teacher then explains to the students that after getting the standard deviation they need to follow the steps:</p> <ol style="list-style-type: none"><li>1. Calculate the deviation d by subtracting the mean (<math>\bar{x}</math>) from each midpoint (x). Thus, <math>d = x - \bar{x}</math>.</li><li>2. Square the deviation (d) of each interval to get <math>d^2</math>.</li><li>3. Multiply the frequency (f) and <math>d^2</math>. And find the sum of each product to get <math>\sum fd^2</math>.</li></ol>																																																																								

	<div>4. Calculate the standard deviation (s) using the formula <math>s = \sqrt{\frac{\sum fd^2}{n}}</math></div> <table><tr><th>Amount in pesos</th><th>Days (f)</th><th>Midpoint (x)</th><th>fx</th><th>d (deviation)</th><th>d<sup>2</sup></th><th>f d<sup>2</sup></th></tr><tr><td>172 – 180</td><td>3</td><td>176</td><td>528</td><td>25</td><td>625</td><td>1875</td></tr><tr><td>163 – 171</td><td>5</td><td>167</td><td>167</td><td>16</td><td>256</td><td>1280</td></tr><tr><td>154 - 162</td><td>9</td><td>158</td><td>158</td><td>7</td><td>49</td><td>441</td></tr><tr><td>145 – 153</td><td>12</td><td>149</td><td>149</td><td>-2</td><td>4</td><td>48</td></tr><tr><td>136 – 144</td><td>5</td><td>140</td><td>140</td><td>-11</td><td>121</td><td>605</td></tr><tr><td>127 – 135</td><td>4</td><td>131</td><td>131</td><td>-20</td><td>400</td><td>1600</td></tr><tr><td>118 - 126</td><td>4</td><td>122</td><td>122</td><td>-29</td><td>841</td><td>1682</td></tr><tr><td></td><td>n = 40</td><td></td><td><math>\sum fx = 604</math></td><td></td><td></td><td><math>\sum f d^2 = 7531</math></td></tr></table> <div>Try to solve the standard deviation:</div> <div>Possible answer of the students: Standard deviation: 13.72</div>	Amount in pesos	Days (f)	Midpoint (x)	fx	d (deviation)	d <sup>2</sup>	f d <sup>2</sup>	172 – 180	3	176	528	25	625	1875	163 – 171	5	167	167	16	256	1280	154 - 162	9	158	158	7	49	441	145 – 153	12	149	149	-2	4	48	136 – 144	5	140	140	-11	121	605	127 – 135	4	131	131	-20	400	1600	118 - 126	4	122	122	-29	841	1682		n = 40		$\sum fx = 604$			$\sum f d^2 = 7531$
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E. Discussing new concepts and practicing new skills #2	<div>The teacher introduces another measure of variability and define. The Range – is the simplest measure of variability. It is the difference between the upper class boundary of the top interval and the lower class boundary of the bottom interval. Range = Upper Class Boundary of the Highest Interval – Lower Class Boundary of the Lowest Interval Example: Scores of the Second Periodical Test of 7 – Faith in Mathematics I</div> <table><tr><th>Scores</th><th>Frequency</th></tr><tr><td>46 – 50</td><td>1</td></tr><tr><td>41 – 45</td><td>10</td></tr><tr><td>36 – 40</td><td>10</td></tr><tr><td>31 – 35</td><td>16</td></tr><tr><td>26 – 30</td><td>9</td></tr><tr><td>21 – 25</td><td>4</td></tr></table> <div>Upper Class Limit of the Highest Interval =50 Upper Class Boundary of the Highest Interval = 50 +0.5 = 50.5  Lower Class Limit of the Lowest Interval = 21 Lower Class Boundary of the Lowest Interval = 21 – 0.5 = 20.5  Range = Upper Class Boundary of the Highest Interval - Lower Class Boundary of the Lowest Interval = 50.5 – 20.5 <b>Range = 30</b></div>	Scores	Frequency	46 – 50	1	41 – 45	10	36 – 40	10	31 – 35	16	26 – 30	9	21 – 25	4																																																	
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F. Developing mastery (leads to formative assessment 3)	<div>Working in pairs, the teacher lets the students perform the following activity. Find the range of the given: Scores of the Second Periodical Test of 7 – Faith in Mathematics I</div> <table><tr><th>Scores</th><th>Frequency</th></tr><tr><td>46 – 50</td><td>1</td></tr><tr><td>41 – 45</td><td>10</td></tr><tr><td>36 – 40</td><td>7</td></tr><tr><td>31 – 35</td><td>16</td></tr><tr><td>26 – 30</td><td>9</td></tr><tr><td>21 – 25</td><td>4</td></tr><tr><td>16 – 20</td><td>3</td></tr></table> <div>Answer: Range = 50.5 – 15.5 = 35</div>	Scores	Frequency	46 – 50	1	41 – 45	10	36 – 40	7	31 – 35	16	26 – 30	9	21 – 25	4	16 – 20	3																																															
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G. Finding practical applications of concepts and skills in daily living																																																																

H. Making generalizations and abstractions about the lesson	The teacher reiterates that standard deviation is considered the best indicator of the degree of dispersion among the measures of variability because it represents an average variability of the distribution. Given the set of data, the smaller the range, the smaller the standard deviation, the less spread is the distribution.																																																														
I. Evaluating Learning	The teacher will ask the students to calculate the range and the standard deviation.																																																														
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Answers: Range = 18 Mean = 12.5 Standard Deviation = 3.78																																																															
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J. Additional activities or remediation																																																															
V. REMARKS																																																															
VI. REFLECTION	Reflect on your teaching and assess yourself as a teacher. Think about your students’ progress. What works? What else needs to be done to help the pupils/students learn? Identify what help your instructional supervisors can provide for you so when you meet them, you can ask them relevant questions.																																																														
A. No. of learners who earned 80% of the evaluation																																																															
B. No. of learners who require additional activities for remediation who scored below 80%																																																															
C. Did the remedial lesson work? No. of learners who have caught up with the lesson.																																																															
D. No. of learners who continue to require remediation																																																															
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	Localization and Contextualization) <b>F. Developing mastery (leads to formative assessment 3)</b>

Prepared by:

**WILMA B. MALAZARTE**  
Labogon NHS