**DAILY LESSON LOG OF M10SP-IVh-j-1 (Week Eight-Day One)**

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| **School** | | **Grade Level** | Grade 10 |
| **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 of measures of position. | | |
| **B. Performance Standards** | The learner is able to conduct systematically a mini-research applying the different statistical methods. | | |
| **C. Learning Competencies/ Objectives** | Learning Competency: Uses appropriate measures of position and other statistical methods in analysing and interpreting research data.**(M10SP-IVh-j-1)**<br>Learning Objectives:<br>1. Calculate quartile of a set of ungrouped data;<br>2. Use quartile of ungrouped data in analysing and interpreting research data; and<br>3. Demonstrate appreciation in using quartile of ungrouped data in analysing and interpreting research data. | | |
| **II. CONTENT** | Statistics and Probability | | |
| **III. LEARNING RESOURCES** | teacher's guide, learner's module, | | |
| **A. References** | https://www.onlinemathlearning.com/quartile.html<br>Median, Quartiles and Percentiles (Ungrouped Data) | | |
| **1. Teacher's Guide** | Pages 322-351 | | |
| **2. Learner's Materials** | Pages 362-401 | | |
| **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** | The Teacher allows the students to arrange the scrambled letters:<br>NIDAME – MEDIAN<br>REWOL RAQULITE – LOWER QUARTILE<br>RUPPE ULITERAQ – UPPER QUARTILE | | |

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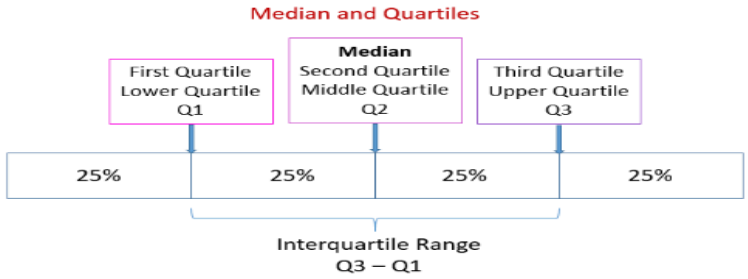
| | The **median** divides the data into a lower half and an upper half.<br>The **lower quartile** is the middle value of the lower half.<br>The **upper quartile** is the middle value of the upper half. |
| **B. Establishing a purpose for the lesson** | The teacher lets the students realize that knowing the steps in computing measures of position (quartile) for ungrouped data are important skills needed to understand the concepts of *using appropriate measures of position and other statistical methods in analysing and interpreting research data*. |
| **C. Presenting examples/ instances of the new lesson** | The Teacher presents the illustration below and explains.<br>  <br><br>***Example :***<br>Find the median, lower quartile and upper quartile of the following numbers.<br>12, 5, 22, 30, 7, 36, 14, 42, 15, 53, 25<br>***Solution:***<br>First, arrange the data in ascending order:<br>5, 7, 12, 14, 15, 22, 25, 30, 36, 42, 53<br>lower quartile median upper quartile<br>Median (middle value) = 22<br>Lower quartile (middle value of the lower half) = 12<br>Upper quartile (middle value of the upper half) = 36<br>If there is an even number of data items, then we need to get the average of the middle numbers. |
| **D. Discussing new concepts and practicing new skills #1** | The Teacher lets the students find the median, lower quartile, upper quartile, interquartile range and range of the following numbers.<br>12, 5, 22, 30, 7, 36, 14, 42, 15, 53, 25, 65<br>***Solution:***<br>First, arrange the data in ascending order:<br>5, 7, 12, 14, 15, 22, 25, 30, 36, 42, 53, 65<br>lower quartile or first quartile<br>median or second quartile<br>upper quartile or third quartile<br>**Lower quartile or first quartile** $= \frac{12+14}{2} = 13$ |

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| | When evaluating the quartiles, always remember to first arrange the data in increasing order. |
| **E. Discussing new concepts and practicing new skills #2** | The Teacher allows the students to solve this:<br>Mrs. Perez gave a test to her students in Statistics. The students finished their test in 20 minutes. This time is the first quartile of the allotted time. What does this mean?<br><br>**Explanation:**<br>This means that 25% of the learners finished the test. A low quartile considered good, because it means the students finished the test in a short period of time. |
| **F. Developing mastery (leads to formative assessment 3)** | The Teacher presents the problem:<br>List shows the number of bottles of **Strawberry Jam** sold in a day by 14 different vendors.<br>20,18,16,10,12,15,13,9,11,16,15,16,18,20,<br>a. What is the third quartile?<br>b. What percent of the distribution fall under this sale?<br><br>Answer:<br>There are 14 observations in the set . So, n=14.<br>Let us arrange the numbers in ascending order.<br>9,10,11,**12**,13,15,15, 16,16,16,**18**,18,20,20<br>**$Q_1$** **$Q_2$** **$Q_3$**<br>a. The 3rd quartile is 18.<br>b. ¾ is also 75/100 or 75%. Therefore 75% of the sales distribution fall below 18 bottles. |
| **G. Finding practical applications of concepts and skills in daily living** | |
| **H. Making generalizations and abstractions about the lesson** | You were given the opportunity to formulate and solve real-life problems involving measures of position. Call a student to The steps and the formula in :<br>Quartile for Ungrouped Data<br>Position of $Q_k$ = k/4 (n+1) |

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| | The Teacher guides the students to realize and understand the process of finding quartiles. |
| **I. Evaluating Learning** | The Teacher allows the students to answer the activity in TRIAD or in PAIR.<br>Instruction: Ask randomly ten of your classmates about their scores from their previous exam/test<br>(Choose any subject).<br>Calculate the following and interpret each result.<br>1. Ist Quartile<br>2. Median/ 2nd Quartile<br>3. 3rd Quartile<br><br>Interpret each result.<br>_____<br>_____<br>_____ |
| **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 | |

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