Mathematics Message from Richard Marumani

I hope you are all well and safe. This week let us share a few ideas on preparation of a relevant assessment task.

The foundation of authentic assessment revolves around evaluating a student's ability to apply what he or she has leant. It focuses on students' analytical skills and the ability to integrate what they have learned and apply it to other situations.

- A relevant math test has students **demonstrate** the various skills and concepts they have learned and explain when it would be appropriate to use those facts and problem-solving skills in their own lives.
- A short **investigation** should encompass a basic maths' problem in which the student can demonstrate how he or she has mastered the basic concepts and skills.
- Include items that encourage the students to interpret, calculate, explain, describe or predict whatever it is they are analysing.
- It should provoke **deep thinking and reasoning:** through gathering data, exploration, investigation, interpretation, reasoning, modeling, designing, analyzing, formation of hypotheses, use of trial and error, generalization and solution-checking.
- Should allow the use Mathematical tools as symbols, tables, graphs, drawings, calculators.
- Have clearly defined learning outcomes for each task that you want to assess.
  The learning outcomes should indicate measurable skills or abilities which students acquire during the course.
- List the skills and abilities (implicit/explicit) required by the learning outcomes.
- Choose a method of assessment appropriate for the outcomes and skills.
- Varying assessment methods enhances student skills, caters for individual abilities and can improve engagement with the task.
- Decide if the assessment method is efficient regarding student time.
- Formulate assessment criteria to match the outcomes and skills.
- Use multiple methods of assessment.
- Arrange assessment items in order of lower, middle and higher cognitive levels.
- Avoid ambiguous questions
- Assess what has been taught to evaluate mastery of concepts/skills