Teacher's Guide
Pythagorean Theorem

This module discusses some facts about Pythagorean Theorem. Also, have the opportunity to practice applying the Pythagorean Theorem to several problems. It is suited for students at the 10th grade level. Students should analyze information on the Pythagorean Theorem including not only the meaning and application of the theorem, but also the proofs.

Teaching Plan

1. **Introduction** : Introduction establish a common ground between teacher and students, to point out benefits of the use of Pythagorean Theorem in our life, that will lead students to the lesson.

2. **Attention**: The first step is capturing the student attention either by a puzzle, or a joke (Piece of Gold along each side the triangle).

3. **Motivation**: Statement given to show why the students need to learn the lesson by showing its importance, a good example is the story of "locked out of your house".

4. **Overview**: Show the student what to be covered during the class period.

5. **Development:** Stage of presenting the discussion
   ☒ General and brief history about Pythagorean.
   ☒ Statement of Pythagorean theorem.
   ☒ Solving the right triangle.
   ☒ Converse of Pythagorean theorem.
   ☒ Construction of integer right triangles.
   ☒ Proof of Pythagorean theorem.
   ☒ Applications of Pythagorean theorem.

6. **Conclusion:** The conclusion should accomplish three things
   ☒ Final summary: Reviews the main points (statement of Pythagorean)
   ☒ Re-motivation : Last chance to let students know why information presented in this lesson are important to the student.
   ☒ Closure: Closure is the signal for lesson end. Like, explain what to do in future, homework exercises. The exercises were written with the assumption that students will use whatever tools (Algebra or Geometry) are available to them.

Finally, it is hoped that this module enables the student to find enjoyment in the study of applications of Pythagorean Theorem in our daily life.