An Educational Exploration of the Pythagorean Theorem through Hands-on Geometric Modeling

Where geometry finds a frame, and you find yourself within!

Setting: Classroom

Participants: Grades 6–8 students

Format: Interactive activity combining mathematical proof with creative construction

Description:

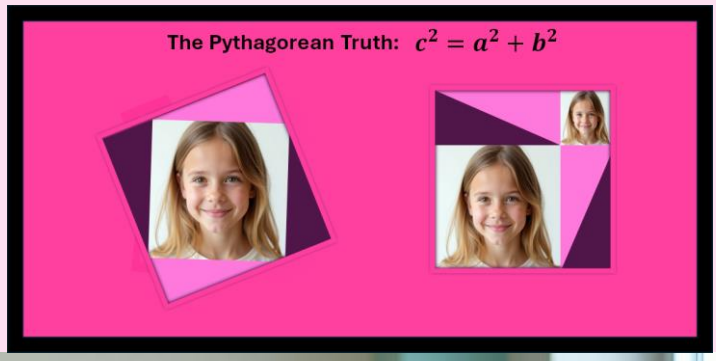
In this creative workshop, students explore the Pythagorean Theorem through an elegant and visual geometric proof. Then, using a photo frame and inner colored panels, they recreate the proof's structure as a tangible art piece.

Each student receives three identical square photos of themselves, sized so that the area of one matches the sum of the areas of the other two—bringing the famous equation $a^2 + b^2 = c^2$ to life. These are arranged within the custom frame to mirror the geometric concept.

At the end, every student takes home a personalized keepsake: a frame that symbolizes both the beauty of mathematics and their place within it

Learning Objectives:

- Understand and visualize the Pythagorean Theorem through geometric reasoning,
- Construct a meaningful artifact that reflects the core mathematical idea,
- Connect abstract math to personal identity and aesthetic expression.



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