Hind Ali

* Mathematical Topic: Geometry, Similarity and Congruence, triangle (Determining Measurements.)
* General Purpose: Putting together puzzles is an engaging way for students to review their knowledge of special right triangles.
* Overview: find the length of the missing side of special triangle.
* Learning Objective/Common Core State Standard:

HSG-SRT.B.5: Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.

* Grade level(s): 10
* Background knowledge required of students:
* The students are able to classify triangles by its angles as acute, obtuse, or right.
* The students are able to classify triangles by the number of congruent sides as scalene, isosceles, or equilateral.
* Time: 40 minutes
* Materials needed:
* Calculator
* Scissors
* Type of activity: puzzles
* Why I picked this activity:

This activity is designed to help students recall the three types of special triangles that they have learned:

* Pythagorean triplets
* 30o, 60o, 90o triangles
* 45o, 45o, 90o triangles
* Follow-up activities/extensions:

Finding Sides of Similar Triangles

* Weaknesses/limitations of activity:

A little bit too long

* Procedure:

The students have to group themselves in pairs. As they do the teacher will hand out one set of the Activity 3x3 puzzle pieces from [Special Triangles Puzzle Pieces](https://betterlesson.com/lesson/resource/1986970/special-triangles-puzzle-pieces-docx-doc-pdf) to each group.  The first set is the easiest of the three.  The 4x4 set entitled Activity Two is slightly harder, and the set labeled Activity Three is the most challenging.

Each side of a puzzle piece contains some part of a special right triangle.  For example, one edge of a square might say 7, 24,\_\_\_\_; the students then find another square with the number 25 on one edge and place it adjacent to the 7, 24,\_\_\_\_.  Once the pieces are matched up correctly, a 3x3 grid will be formed. If a pair of students completes all three sets of squares and needs something else to do, the teacher will hand each student in the pair a blank template and ask each to work on designing his or her own puzzle.

* Source:

https://betterlesson.com/lesson/448035/special-right-triangles