



Lesson 9-6 - Families of Right Triangles

Today, we talked about Pythagorean Triples. This is a pretty straight forward concept...these are just multiples of well-known right triangles. It will behoove you to memorize the ones given below at a *minimum*!!

Definition

Any three whole numbers that satisfy the equation $a^2 + b^2 = c^2$ form a *Pythagorean Triple*.

Common families of Pythagorean triples include:

3, 4, 5

5, 12, 13

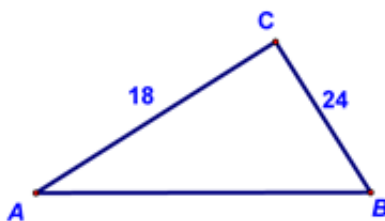
7, 24, 25

8, 15, 17

9, 40, 41

Following is an example of how these can be used...it's just quicker than doing all the algebra associated with Pythagorean Theorem:

Find AB



$$18 \div 6 = 3 \text{ and } 24 \div 6 = 4$$

\therefore this is a multiple of a 3, 4, 5 triangle, so $AB = 5 \cdot 6$ or 30!