## Pythagorean Theorem $A^2 + B^2 = C^2$

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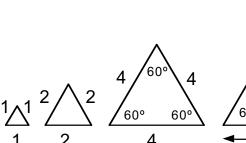
## **IMPORTANT FACTS:**

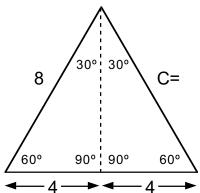
This is actually Trigonometry, where we measure angles to calculate distances.

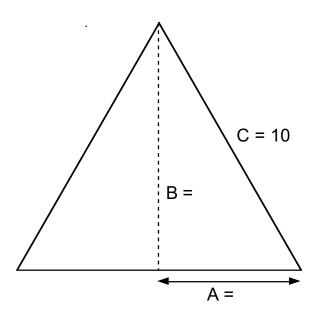
The total of all 3 angles in any triangle always equals 180°

The 30° -- 60° -- 90° right triangle is half of an equilateral triangle.

Equilateral Triangles:



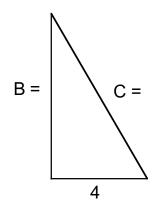


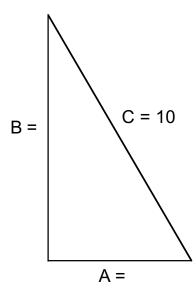


30° - 60° - 90° **Right Triangles:** 

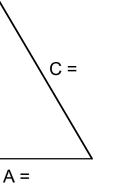
$$B = \begin{bmatrix} 2 \\ 1 \end{bmatrix}$$

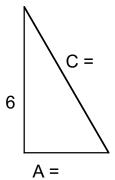
$$B = \begin{bmatrix} 4 \\ 2 \end{bmatrix}$$





4√3





Joel Harrison 2010

(simplify)

(simplify)