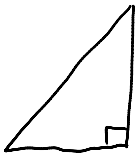
Section 4.1: Intro to Trig

Thursday, November 05, 2015
11:07 AM

review of right triangles:



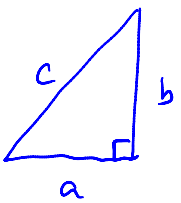
sum of angles in any triangle is 180°

right angle measures 90°

so the sum of the other two angles in a right triangle is also 90°

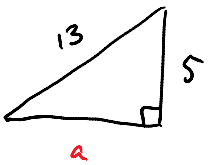
(angles are complementary)

Pythagorean theorem:



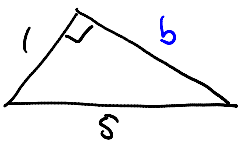
$a^2 + b^2 = c^2$

calculate the remaining side for the following triangles:



$a^2 + b^2 = c^2$

$a^2 = c^2 - b^2$
$= 13^2 - 5^2$
$= 169 - 25$
$= 144$
$a = 12$



$a^2 + b^2 = c^2$

$b^2 = c^2 - a^2$
$= 25 - 1$
$= 24$

$b = \sqrt{24}$

$= 144$

$a = 12$

$b = \sqrt{24}$

$= \sqrt{4 \cdot 6}$

$= 2\sqrt{6}$ ← exact answer

(decimal "answer" is an approximation)