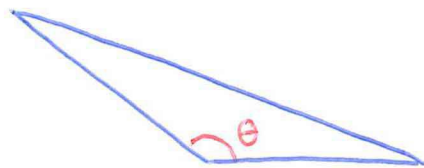
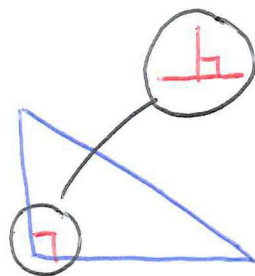


Trigonometry

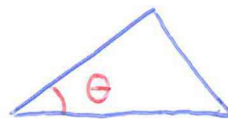


obtuse angle
 $\theta > 90^\circ$



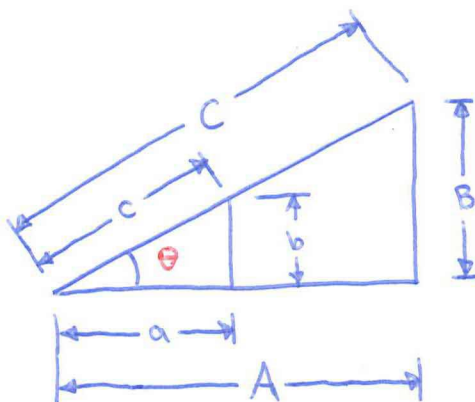
right angle
 $\theta = 90^\circ$

perpendicular



acute angle
 $\theta < 90^\circ$

The Right Angle Triangle

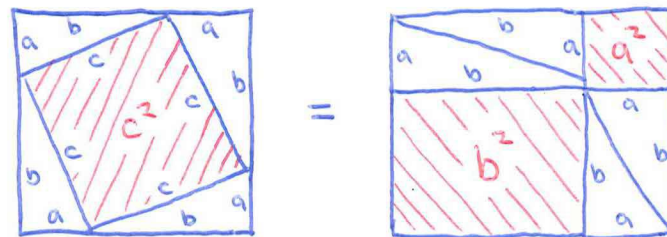


$$\sin \theta = \frac{b}{c} = \frac{B}{C}$$

$$\cos \theta = \frac{a}{c} = \frac{A}{C}$$

$$\tan \theta = \frac{b}{a} = \frac{B}{A} = \frac{\sin \theta}{\cos \theta}$$

Pythagorean theorem



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

Further

$$(a+b)^2 = a^2 + b^2 + 2ab$$

