

Cosine rule

The *cosine rule* states that if a , b and c are the side lengths of a triangle, and A is the angle opposite side a , then

$$a^2 = b^2 + c^2 - 2bc \cos A.$$

This is a generalisation of [Pythagoras' Theorem](#), as if $A = 90^\circ$, then $\cos A = 0$.