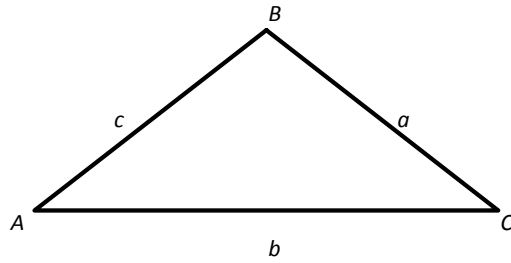# Law of Cosines

The Law of Cosines is used to solve oblique triangles (triangles that do not have a right angle) when you have SAS or SSS.

$$a^2 = b^2 + c^2 - 2bc\cos A$$
$$b^2 = a^2 + c^2 - 2ac\cos B$$
$$c^2 = a^2 + b^2 - 2ab\cos C$$

1. Solve each triangle.

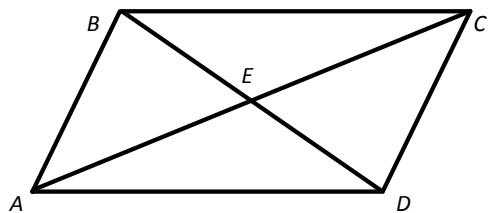a) $\measuredangle A = 112°$
   $c = 10$
   $b = 15$

b) $a = 9$
   $b = 14$
   $c = 17$

2. Find the missing parts of the parallelogram.

Given	Find
$AB = 10$	$BC =$
$AD = 12$	$CD =$
$EC = 9.5$	$AC =$
	$BD =$
	$\measuredangle BAD =$
	$\measuredangle ABC =$
	$\measuredangle BCD =$
	$\measuredangle CDA =$