Corresponding Parts of Congruent Triangles are Congruent (CPCTC)

Recall that if triangles are congruent, then all corresponding parts (sides and angles) are congruent. This can be summarized as follows:
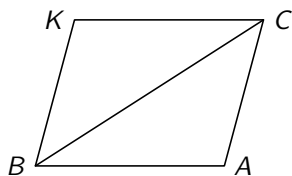
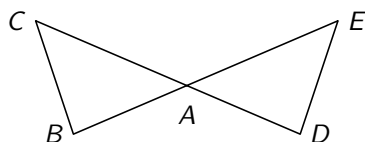Corresponding Parts of Congruent Triangles are Congruent (CPCTC)

Steps to Using CPCTC:

1. Get $\triangle$s congruent (SSS, SAS, ASA, AAS, HL)

2. Use CPCTC to prove what you have to prove.

Example 1. Prove each of the following.

(a) **Given:** $\angle KBC \cong \angle ACB$, $\angle K \cong \angle A$ **Prove:** $\overline{KB} \cong \overline{AC}$

(b) **Given:** $\overline{BA} \cong \overline{DA}$, $\overline{CA} \cong \overline{EA}$ **Prove:** $\angle C \cong \angle E$

(c) **Given:** $\overline{AB} \cong \overline{AC}$, M is the midpoint of $\overline{BC}$ **Prove:** $\angle AMB \cong \angle AMC$