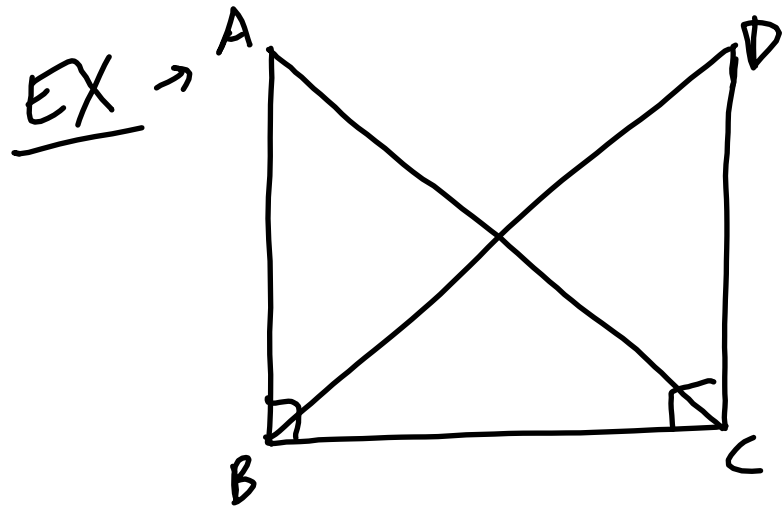
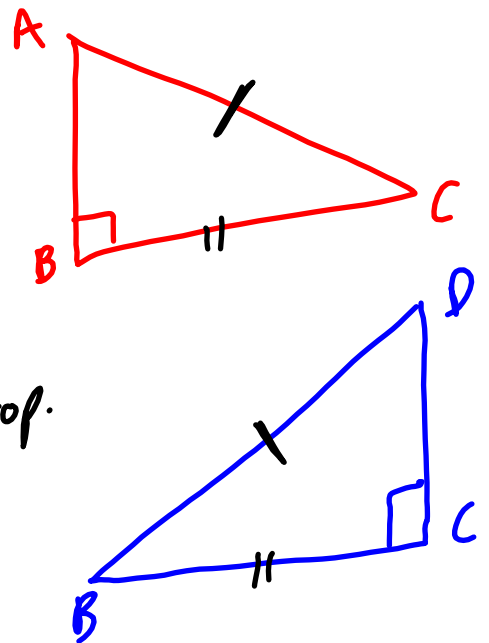


# CPCTC / Overlapping Triangles

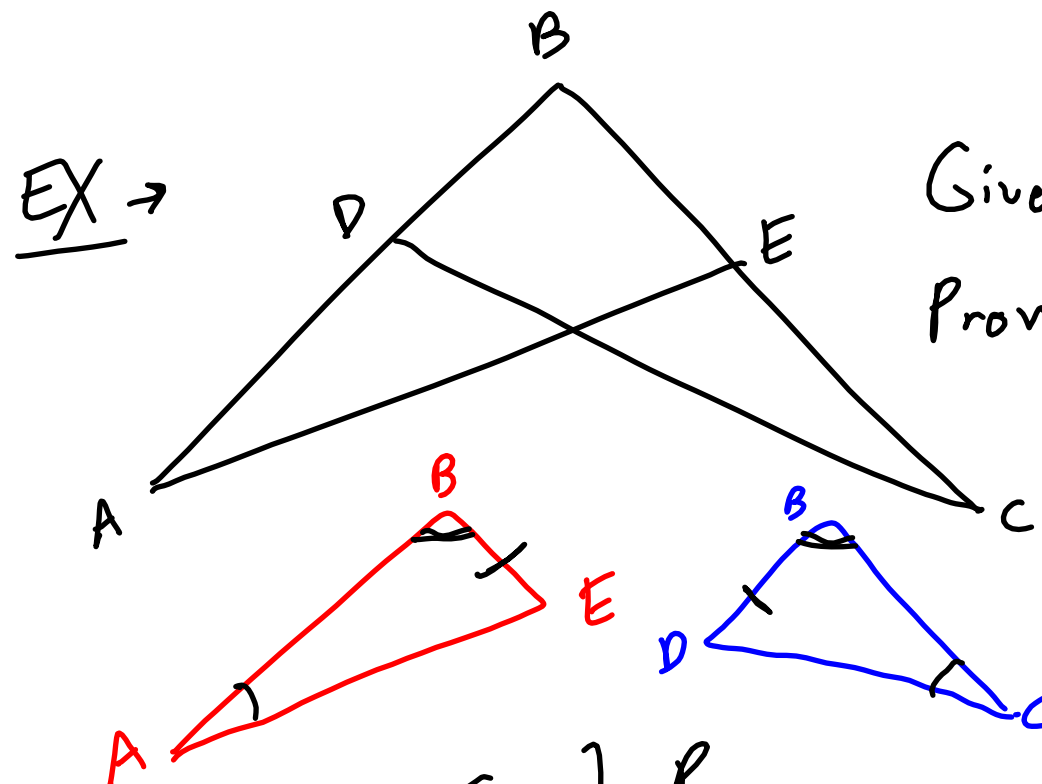
## - Overlapping Triangles



Given:  $\overline{AC} \cong \overline{BD}$   
 Prove:  $\triangle ABC \cong \triangle DCB$



S	R
① ∴	① Given
② $\overline{BC} \cong \overline{BC}$	② Reflexive Prop.
③ $\triangle ABC \cong \triangle DCB$	③ HL

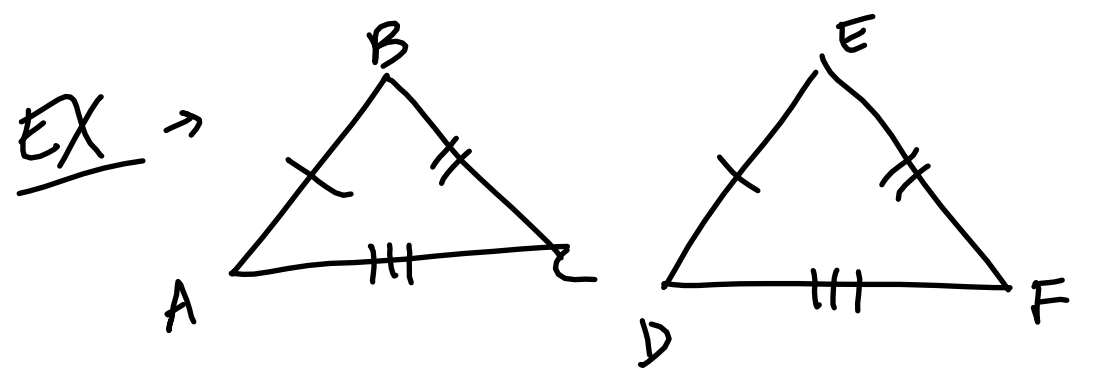


Given:  $\angle A \cong \angle C$   
 $\overline{DB} \cong \overline{BE}$   
 Prove:  $\triangle ABE \cong \triangle CBD$

S	R
① ∴	① Given
② $\angle B \cong \angle B$	② Reflexive Prop.
③ $\triangle ABE \cong \triangle CBD$	③ AAS

- CPCTC  $\Rightarrow$  "corresponding parts of congruent triangles are congruent"

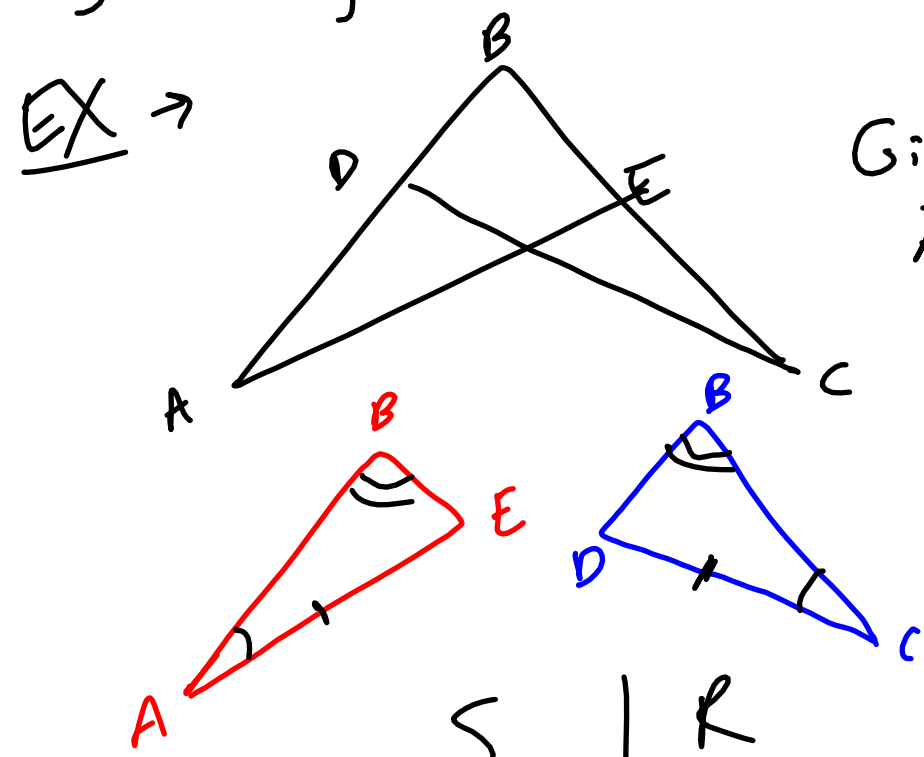
$\hookrightarrow$  use when trying to show parts of triangle congruent



Given:  $\overline{AB} \cong \overline{DE}$ ,  $\overline{BC} \cong \overline{EF}$ ,  
 $\overline{AC} \cong \overline{DF}$

Prove:  $\angle A \cong \angle D$

S	R
① $\ddot{\phantom{A}}$	① Given
② $\triangle ABC \cong \triangle DEF$	② SSS
③ $\angle A \cong \angle D$	③ CPCTC



Given:  $\angle A \cong \angle C$ ,  
 $\overline{AE} \cong \overline{CD}$   
 Prove:  $\angle BDE \cong \angle BEA$

S	R
① $\ddot{\phantom{A}}$	① Given
② $\angle B \cong \angle B$	② Reflexive Prop.
③ $\triangle ABE \cong \triangle CBD$	③ AAS
④ $\angle BDE \cong \angle BEA$	④ CPCTC

HW: p. 246 → 6, 7, 9, 10

p. 269 → 15, 16, 21