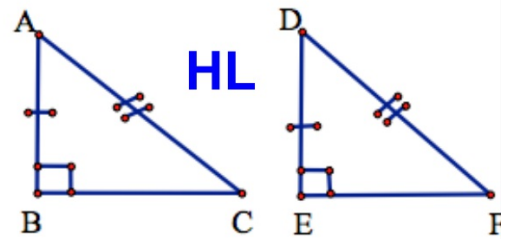
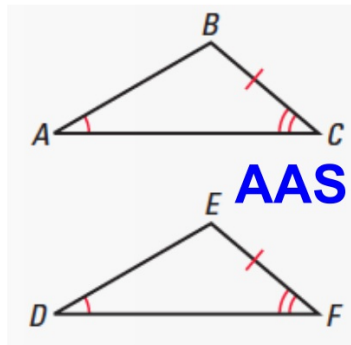
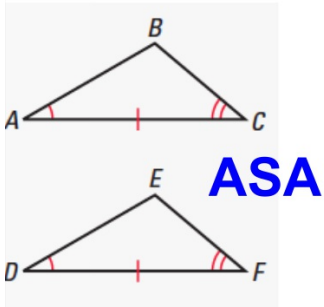
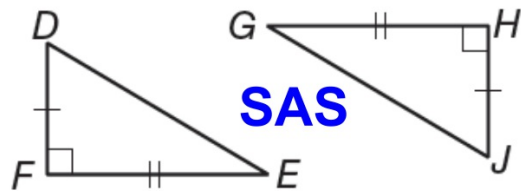
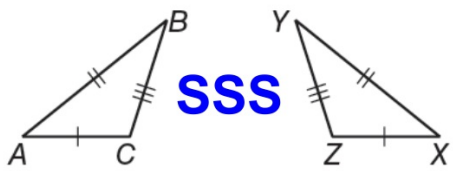


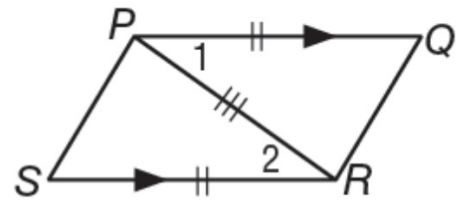
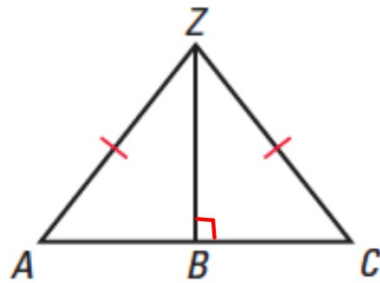
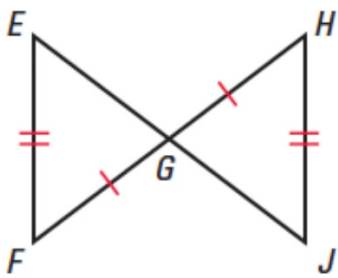
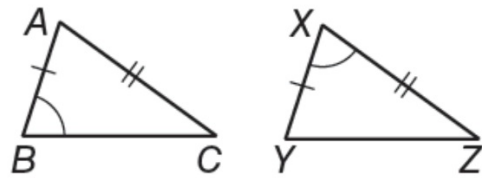
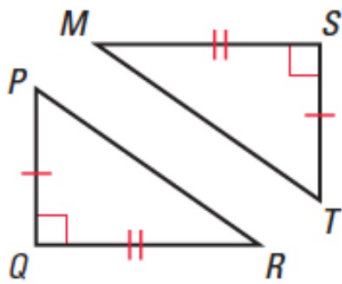
# *Proving Triangles Congruent*



# Proving Triangles Congruent

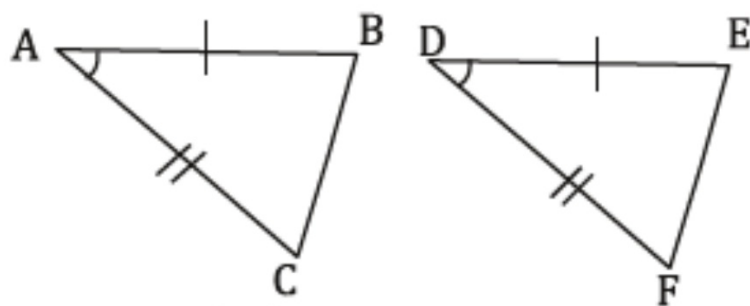


## Examples:



## Proofs:

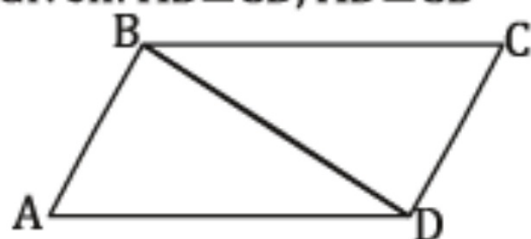
Given:  $\overline{AB} \cong \overline{DE}$ ,  $\overline{AC} \cong \overline{DF}$ , and  $\angle A \cong \angle D$



Prove:  $\triangle ABC \cong \triangle DEF$

Statements	Reasons
1. $\overline{AB} \cong \overline{DE}$	1. <input type="text"/>
2. $\overline{AC} \cong \overline{DF}$	2. <input type="text"/>
3. $\angle A \cong \angle D$	3. <input type="text"/>
4. $\triangle ABC \cong \triangle DEF$	4. <input type="text"/>

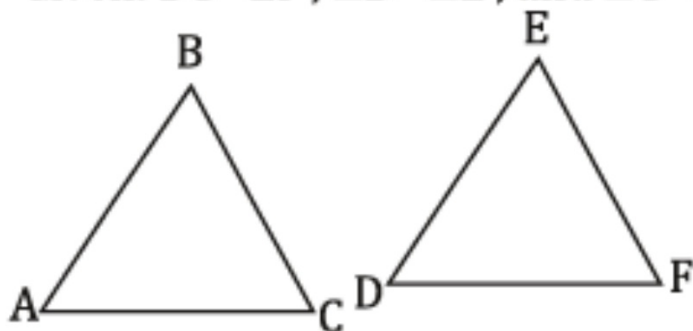
Given:  $\overline{AB} \cong \overline{CD}$ ,  $\overline{AD} \cong \overline{CB}$



Prove:  $\triangle ABD \cong \triangle CDB$

Statements	Reasons
1. $\overline{AB} \cong \overline{CD}$	1. <input type="text"/>
2. $\overline{AD} \cong \overline{CB}$	2. <input type="text"/>
3. $\overline{BD} \cong \overline{BD}$	3. <input type="text"/>
4. $\triangle ABD \cong \triangle CDB$	4. <input type="text"/>

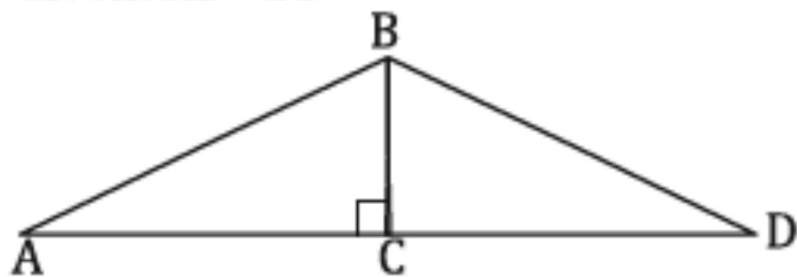
Given:  $\overline{BC} \cong \overline{EF}$ ,  $\angle B \cong \angle E$ , and  $\angle C \cong \angle F$



Prove:  $\triangle ABC \cong \triangle DEF$

Statements	Reasons
1. $\overline{BC} \cong \overline{EF}$	1. <input type="text"/>
2. $\angle B \cong \angle E$	2. <input type="text"/>
3. $\angle C \cong \angle F$	3. <input type="text"/>
4. $\triangle ABC \cong \triangle DEF$	4. <input type="text"/>

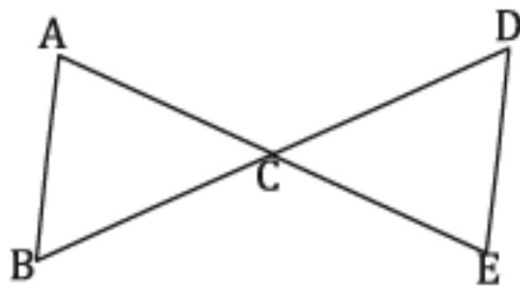
Given:  $\overline{AB} \cong \overline{BD}$



Prove:  $\triangle ABC \cong \triangle DBC$

Statements	Reasons
1. $\overline{AB} \cong \overline{BD}$	1. <input type="text"/>
2. $\overline{BC} \cong \overline{BC}$	2. <input type="text"/>
3. $\triangle ABC \cong \triangle DBC$	3. <input type="text"/>

Given:  $\overline{AE}$  Bisects  $\overline{BD}$ ,  $\angle B \cong \angle D$

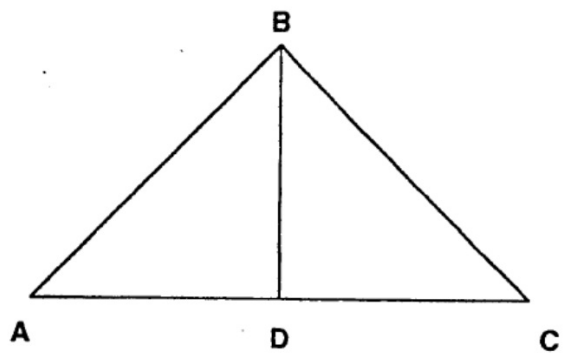


Prove:  $\triangle ABC \cong \triangle DBC$

Statements	Reasons
1. $\angle B \cong \angle D$	1. <input type="text"/>
2. $\overline{AC}$ Bisects $\overline{BD}$	2. <input type="text"/>
3. $\overline{BC} \cong \overline{DC}$	3. <input type="text"/>
4. $\angle ACB \cong \angle DCE$	4. <input type="text"/>
5. $\triangle ABC \cong \triangle DBC$	5. <input type="text"/>



Given:  $\overline{BD} \perp \overline{AC}$   
D is the midpoint of  $\overline{AC}$   
Prove:  $\triangle ADB \cong \triangle CDB$



Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

GIVEN:  $\overline{XY} \cong \overline{YZ}$   
 $\overline{YW}$  is the median  
to  $\overline{XZ}$

PROVE:  $\triangle XYW \cong \triangle ZYW$

