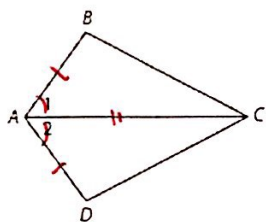


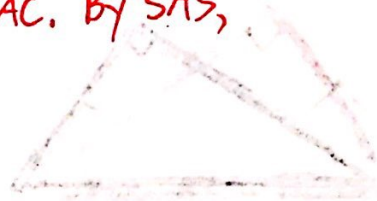
Write a paragraph proof.

Given:  $\overline{AB} \cong \overline{AD}$  and  $\angle 1 \cong \angle 2$

Prove:  $\triangle BAC \cong \triangle DAC$



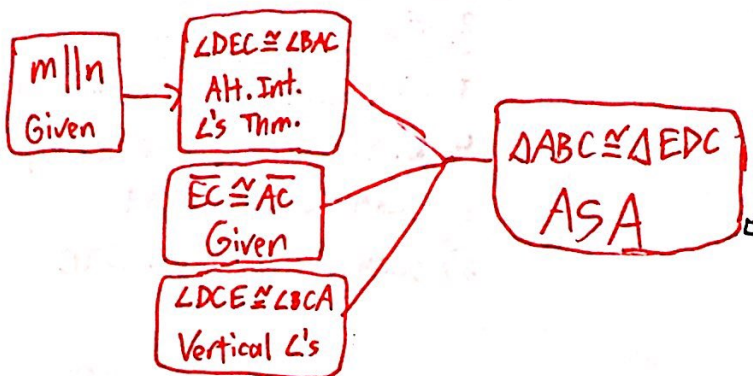
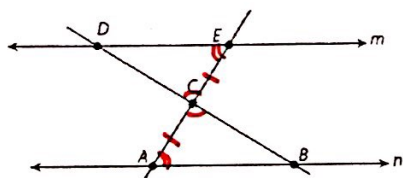
We are given that  $\overline{AB} \cong \overline{AD}$  and  $\angle 1 \cong \angle 2$ .  
By the reflexive property,  $\overline{AC} \cong \overline{AC}$ . By SAS,  
 $\triangle BAC \cong \triangle DAC$ .  $\square$



Write a flowchart proof.

Given:  $\overline{AC} \cong \overline{EC}$  and  $m \parallel n$

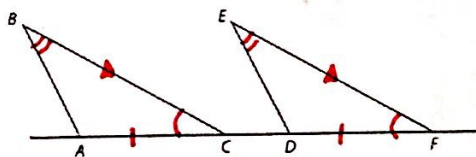
Prove:  $\triangle ABC \cong \triangle EDC$



Write a paragraph proof.

Given:  $\angle ABC \cong \angle DEF$ ,  $\overline{BC} \parallel \overline{EF}$ ,  $\overline{AC} \cong \overline{DF}$ .

Prove:  $\triangle ABC$  is congruent to  $\triangle DEF$

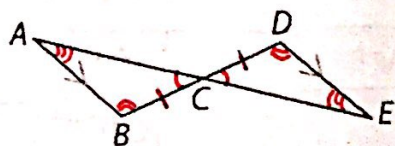


We are given that  $\angle ABC \cong \angle DEF$  and  $\overline{AC} \cong \overline{DF}$ . Also,  
since  $\overline{BC} \parallel \overline{EF}$ , we know that  $\angle BCA \cong \angle EFD$  by the  
corresponding angles theorem. By AAS,  $\triangle ABC \cong \triangle DEF$ .  $\square$

Write a two-column proof.

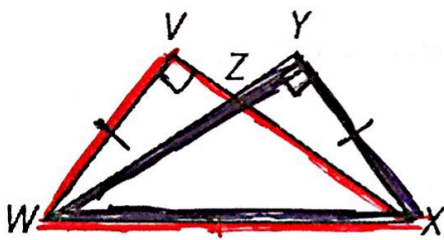
Given:  $\overline{AB} \parallel \overline{DE}$ ,  $\overline{CB} \cong \overline{CD}$ .

Prove:  $\triangle ABC \cong \triangle EDC$



Statements	Reasons
1) $\overline{CB} \cong \overline{CD}$	Given
2) $\overline{AB} \parallel \overline{DE}$	Given
3) $\angle B \cong \angle D$	Alt. Int. Thm.
4) $\angle ACB \cong \angle ECD$	Vertical Angles
5) $\triangle ABC \cong \triangle EDC$	ASA $\square$

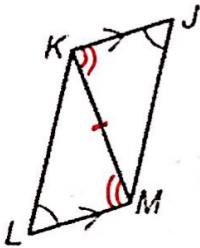
Determine whether there is enough information to prove that triangles  $\triangle VWX$  and  $\triangle YXW$  are congruent. Explain.



Yes;  $\overline{WX}$  is the hypotenuse of both triangles, so you can use HL.

Given:  $\angle L \cong \angle J$ ,  $\overline{KJ} \parallel \overline{LM}$

Prove:  $\angle LKM \cong \angle JMK$

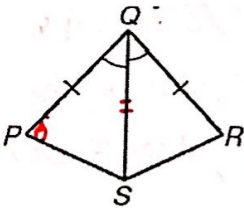


Write a proof (you can choose the type)

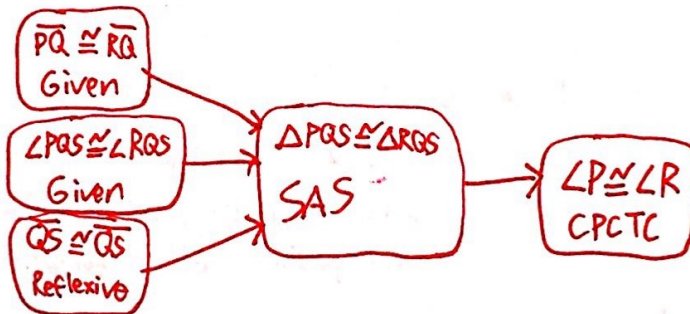
A	1) $\angle L \cong \angle J$	Given
	2) $\overline{KJ} \parallel \overline{LM}$	Given
A	3) $\angle JKM \cong \angle LMK$	Alt. Int. $\angle$ 's Thm.
S	4) $\overline{KM} \cong \overline{KM}$	Reflexive Property
	5) $\triangle LKM \cong \triangle JMK$	AAS
	6) $\angle LKM \cong \angle JMK$	CPCTC

Given:  $\overline{PQ} \cong \overline{RQ}$ ,  $\angle PQS \cong \angle RQS$

Prove:  $\angle P \cong \angle R$

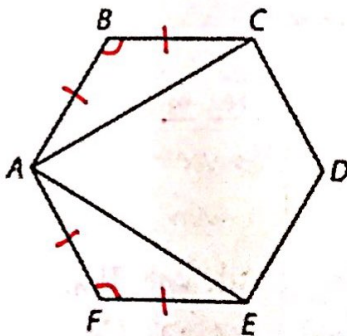


Write a proof (you can choose the type)



Given that polygon  $ABCDEF$  is a regular hexagon, prove that  $\overline{AC} \cong \overline{AE}$ .

Write a two-column proof.



1) $ABCDEF$ is a regular hexagon	Given
2) $\overline{AB} \cong \overline{AF}$	Def. of regular
3) $\overline{BC} \cong \overline{EF}$	" " "
4) $\angle B \cong \angle F$	" " "
5) $\triangle ABC \cong \triangle AFE$	SAS
6) $\overline{AC} \cong \overline{AE}$	CPCTC