

Given

$$\angle ABD \cong \angle CDB$$

$$\angle ADB \cong \angle CBD$$

Prove

$$\overline{CD} \cong \overline{AB}$$

this is ALWAYS the END!!

Statement

Reason

$$\Rightarrow \angle ABD \cong \angle CDB$$

$$\angle ADB \cong \angle CBD$$

Given

Given

$$\overline{BD} \cong \overline{DB}$$

Reflexive Property

$$\triangle ABD \cong \triangle CDB$$

ASA

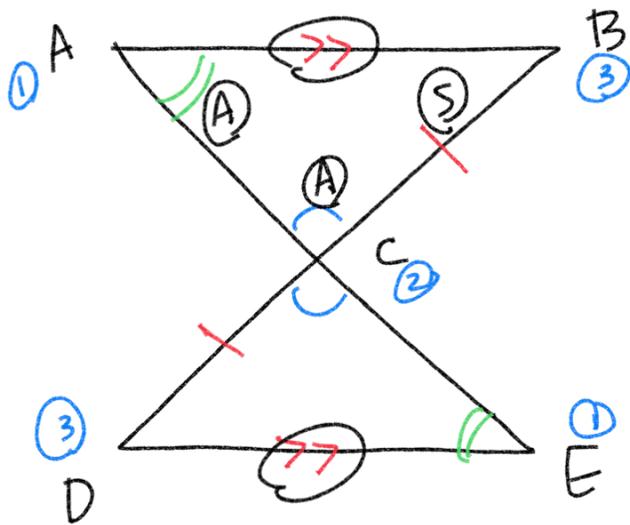
SSS, SAS, ASA, AAS

$$\overline{CD} \cong \overline{AB}$$

CPCTC

Always the end

"variable"
Reflexive
Vertical
Alt Interior



Statement

$$\rightarrow \overline{AB} \parallel \overline{DE}$$

$$\rightarrow \overline{BC} \cong \overline{DC}$$

$$\angle ACB \cong \angle ECD$$

$$\angle E \cong \angle A$$

$$\triangle ABC \cong \triangle EDC$$

$$\rightarrow \overline{AB} \cong \overline{ED}$$

Given *parallel lines*

$$\overline{AB} \parallel \overline{DE}$$

$$\overline{BC} \cong \overline{DC}$$

think

Alternate
Interior
Angles

Prove

$$\overline{AB} \cong \overline{ED}$$

Reasons

Given

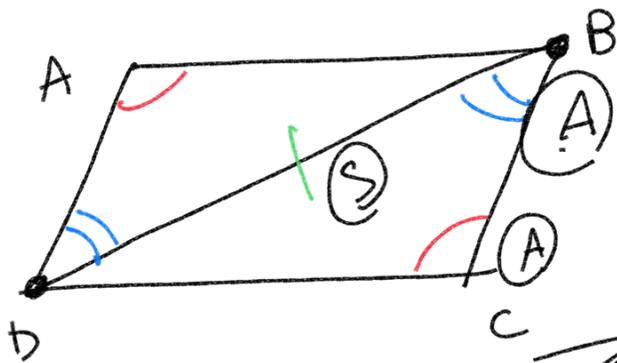
Given

vertical angles

alternate interior angles

AAS

CPCTC



Given

$$\angle BAD \cong \angle DCB$$

$$\angle ADB \cong \angle CBD$$

Prove

$$\overline{AD} \cong \overline{CB}$$

Statement

$$\rightarrow \angle BAD \cong \angle DCB$$

$$\rightarrow \angle ADB \cong \angle CBD$$

$$\overline{DB} \cong \overline{BD}$$

$$\triangle BAD \cong \triangle DCB$$

$$\overline{AD} \cong \overline{CB}$$

Reasons

Given

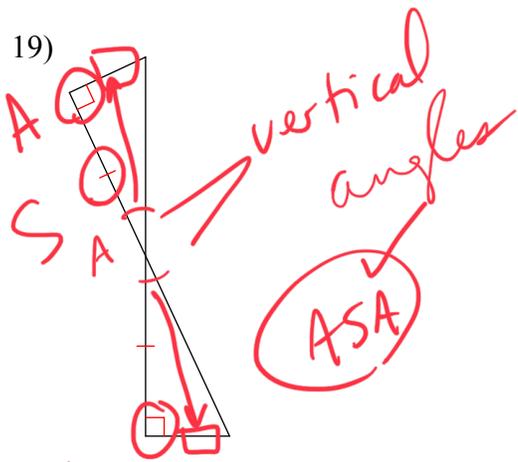
Given

Reflexive Property

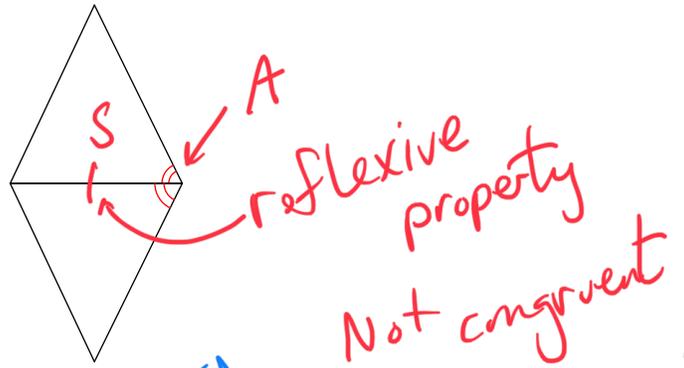
AAS

CPCTC

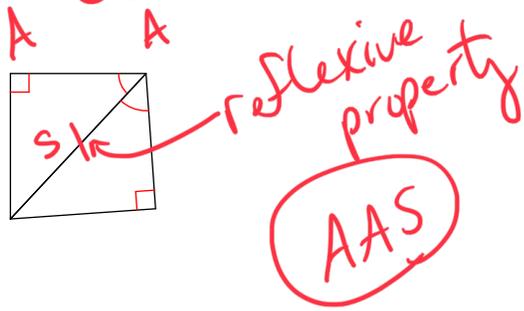
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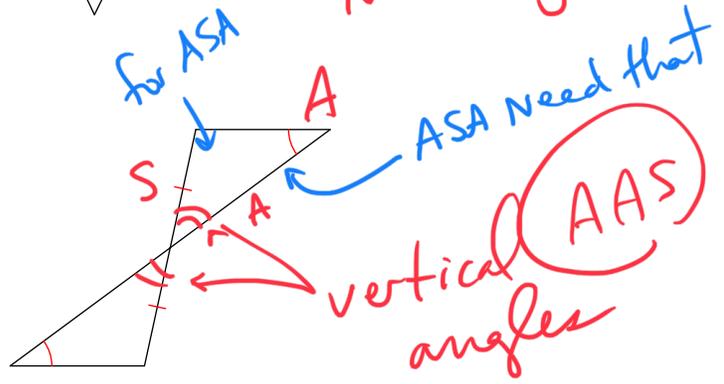
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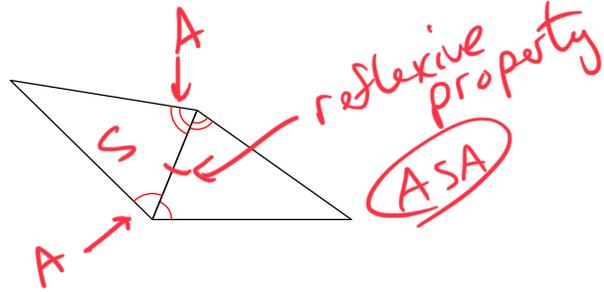
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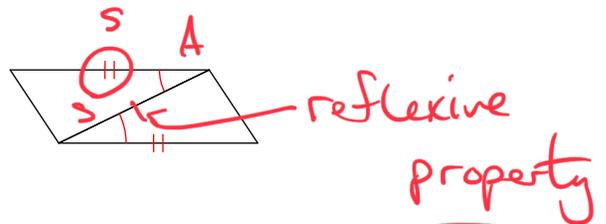
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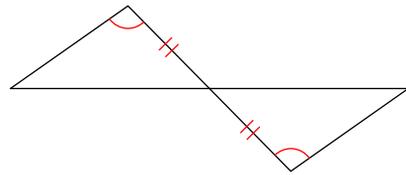
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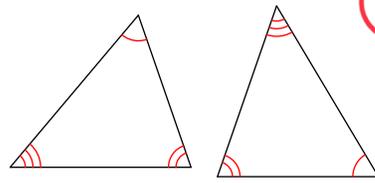
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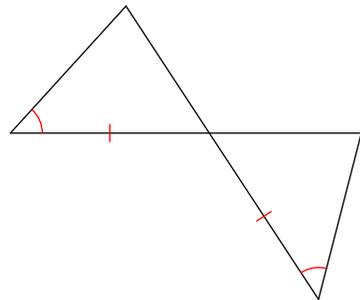
25)



26)



27)



28)

