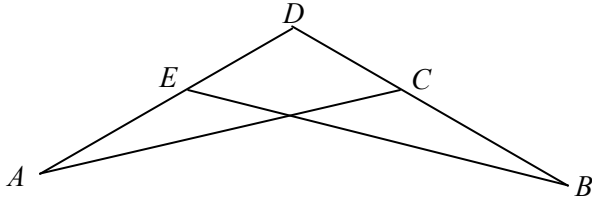
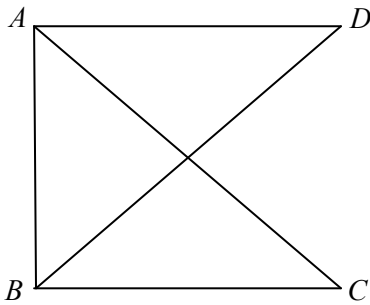


1) Separate and redraw $\triangle ACD$ and $\triangle BED$. Identify the common side or angle.

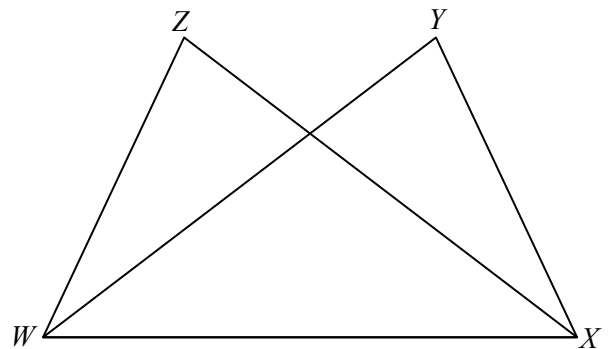


2) Separate and redraw $\triangle ABD$ and $\triangle BAC$. Identify the common side or angle.

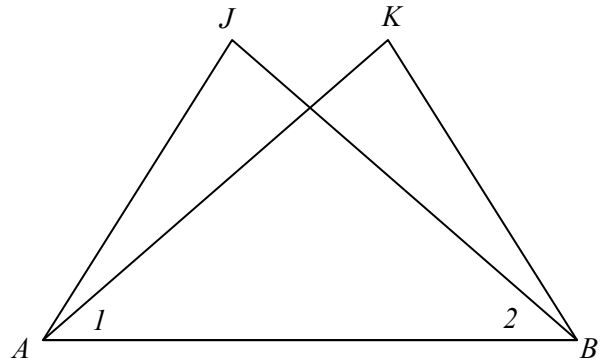


Write a Two-Column Proof

3) Given: $\angle ZWX \cong \angle YWX, \angle ZXW \cong \angle YWX$
 Prove: $\overline{WZ} \cong \overline{XY}$

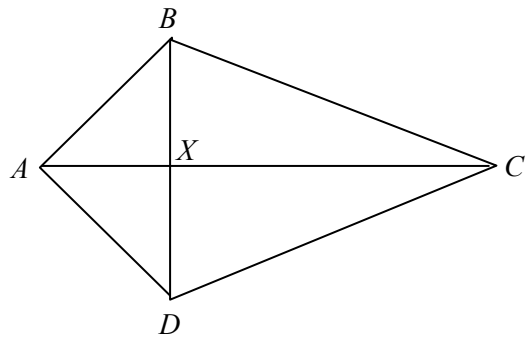


- 4) Given: $\angle JAB \cong \angle KBA$, $\angle 1 \cong \angle 2$
Prove: $\angle J \cong \angle K$

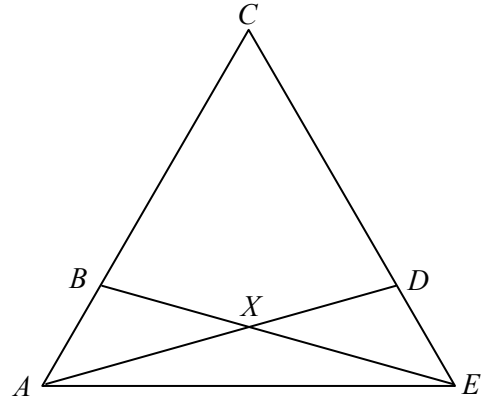


Write a Two-Column Proof using more than one pair of congruent triangles.

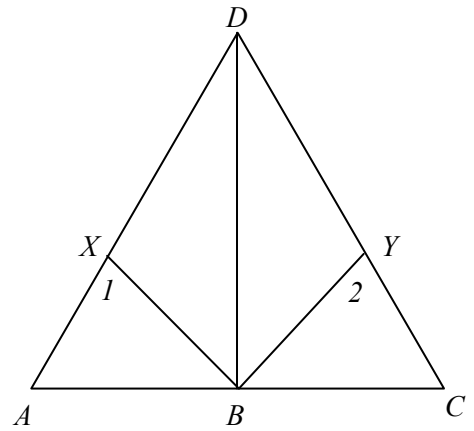
- 5) Given: X is the midpoint of \overline{BD} ; $\overline{AC} \perp \overline{BD}$
Prove: $\angle ABC \cong \angle ADC$



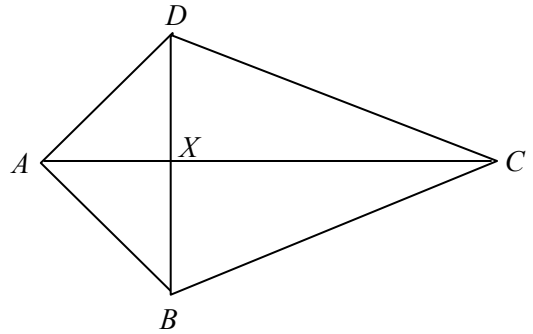
- 6) Given: $\overline{CA} \cong \overline{CE}$; $\overline{BA} \cong \overline{DE}$
Prove: $\overline{BX} \cong \overline{DX}$



- 7) Given: $\overline{DB} \perp \overline{AC}$; $\overline{AB} \cong \overline{CB}$; $\angle 1 \cong \angle 2$
Prove: $\overline{XB} \cong \overline{YB}$



- 8) Given: $\overline{AB} \cong \overline{AD}$; $\overline{BC} \cong \overline{DC}$
Prove: $\overline{AC} \perp \overline{BD}$



Answer Key

- 1) Check students work. $\angle G$
- 2) Check students work. \overline{AB}

$\angle ZWX \cong \angle YWX, \angle ZXW \cong \angle YWX$ Given

- 3) $\overline{WX} \cong \overline{WX}$ Reflexive property of Congruence
- $\Delta ZWX \cong \Delta YWX$ ASA
- $\overline{WZ} \cong \overline{XY}$ CPCTC

$\angle JAB \cong \angle KBA, \angle 1 \cong \angle 2$ Given

- 4) $\overline{AB} \cong \overline{AB}$ Reflexive property of Congruence
- $\Delta JAB \cong \Delta KBA$ ASA
- $\angle J \cong \angle K$ CPCTC

X is the midpoint of \overline{BD} ; $\overline{AC} \perp \overline{BD}$ Given

$\overline{XB} \cong \overline{XD}$ Definition of Midpoint

$\angle AXB \cong \angle AXD$ If two lines are \perp then they form adjacent \angle s

$\overline{AX} \cong \overline{AX}$ Reflexive Property

- 5) $\Delta ABX \cong \Delta ADX$ SAS
- $\angle BAC \cong \angle DAC; \overline{AB} \cong \overline{AD}$ CPCTC
- $\overline{AC} \cong \overline{AC}$ Reflexive Property
- $\Delta ABC \cong \Delta ADC$ SAS
- $\angle ABC \cong \angle ADC$ CPCTC

$\overline{CA} \cong \overline{CE}; \overline{BA} \cong \overline{DE}$ Given

$\angle CAE \cong \angle CEA$ Base angles of Isosceles Triangle are \cong

$\overline{AE} \cong \overline{AE}$ Reflexive Property

- 6) $\Delta BAE \cong \Delta DEA$ SAS
- $\angle ABE \cong \angle EDA$ CPCTC
- $\angle DXE \cong \angle BXA$ Vertical Angles
- $\Delta BXA \cong \Delta DXE$ AAS
- $\overline{BX} \cong \overline{DX}$ CPCTC

$\overline{DB} \perp \overline{AC}; \overline{AB} \cong \overline{CB}; \angle 1 \cong \angle 2$ Given

$\angle ABD \cong \angle CBD$ If two lines are \perp then they form adj angles

$\overline{DB} \cong \overline{DB}$ Reflexive Property

7) $\triangle ABD \cong \triangle CBD$ SAS

$\angle A \cong \angle C$ CPCTC

$\triangle AXB \cong \triangle CYB$ AAS

$\overline{XB} \cong \overline{YB}$ CPCTC

$\overline{AB} \cong \overline{AD}; \overline{BC} \cong \overline{DC}$ Given

$\overline{AC} \cong \overline{AC}$ Reflexive Property

$\triangle ABC \cong \triangle ADC$ SSS

$\angle BCX \cong \angle DCX$ CPCTC

8) $\overline{XC} \cong \overline{XC}$ Reflexive Property

$\triangle BCX \cong \triangle DCX$ SAS

$\angle BXC \cong \angle DXC$ CPCTC

$\overline{AC} \perp \overline{BD}$ If two lines form \cong adjacent angles, then lines are \perp