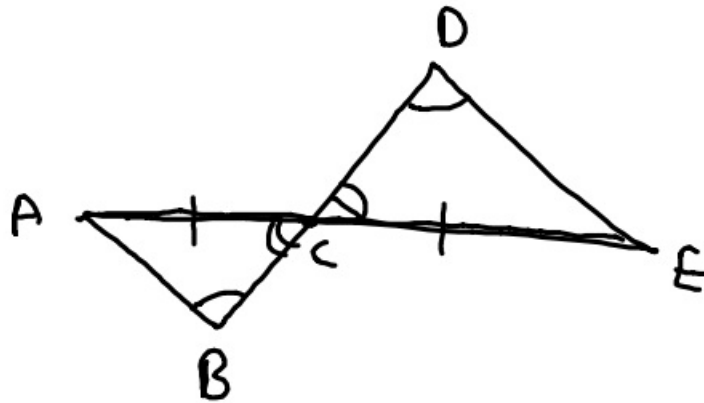


5-9-19 5th Geo

Given: C is midpoint of \overline{AE}

$$\angle ABC = \angle EDC$$

Prove: $\angle A = \angle E$



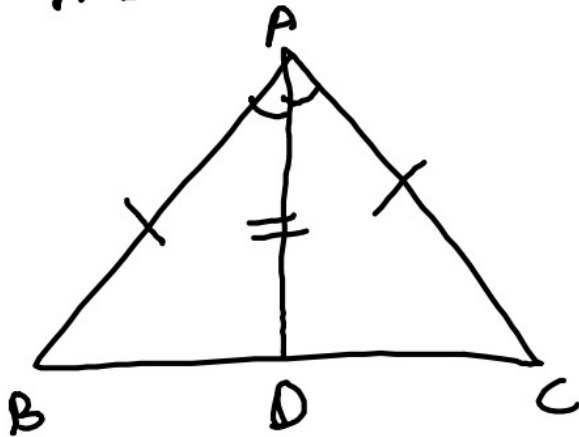
Statement	Justification
① C is midpoint of \overline{AE}	① Given
② $AC = CE$	② Definition of a midpoint
③ $\angle ABC = \angle EDC$	③ Given
④ $\angle ACB = \angle DCE$	④ Vertical \angle 's are \cong .
⑤ $\triangle ABC \cong \triangle EDC$	⑤ A A S
⑥ $\angle A = \angle E$	⑥ Corresponding Parts of Congruent Triangles are Congruent (CPCTC)

#

Given: $AB = AC$

\overline{AD} bisects $\angle BAC$

Prove: $BD = DC$



Statement	Justification
① $AB = AC$	① Given
② \overline{AD} bisects $\angle BAC$	② Given
③ $\angle BAD = \angle CAD$	③ Definition of bisection
④ $AD = AD$	④ Reflexive
⑤ $\triangle BAD \cong \triangle CAD$	⑤ SAS
⑥ $BD = DC$	⑥ CPCTC

#

Kami 2

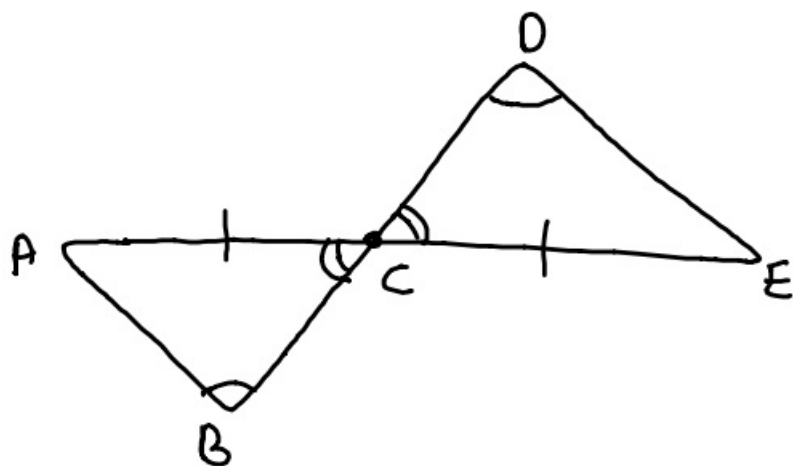
5-9-19 6th Geo

Given:

C is midpoint of \overline{AE}

$\angle ABC = \angle EDC$

Prove: $\angle A = \angle E$



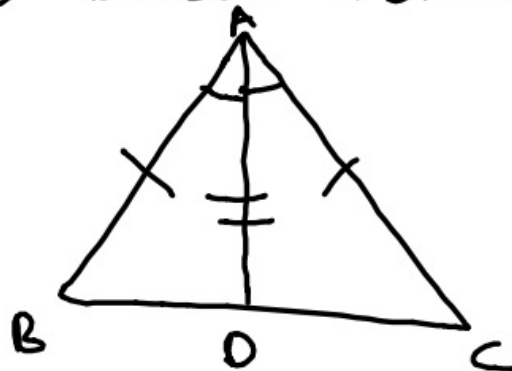
Statement	Justification
① C is midpoint of \overline{AE}	① Given
② $AC = CE$	② Definition of midpoint
③ $\angle ABC = \angle EDC$	③ Given
④ $\angle ACB = \angle ECD$	④ Vertical \angle 's are =
⑤ $\triangle ABC \cong \triangle EDC$	⑤ AAS
⑥ $\angle A = \angle E$	⑥ Corresponding parts of congruent Triangles (Figures) are congruent (CPCTC)

#

Given: $AB = AC$

Prove: $BD = DC$

\overline{AD} bisects $\angle BAC$



Statements	Justification
① $AB = AC$	① Given
② \overline{AD} bisects $\angle BAC$	② Given
③ $\angle BAD = \angle CAD$	③ Def. of bisection
④ $AD = AD$	④ Reflexive
⑤ $\triangle BAD = \triangle CAD$	⑤ SAS
⑥ $BD = DC$	⑥ CPCTC #

Kami 2