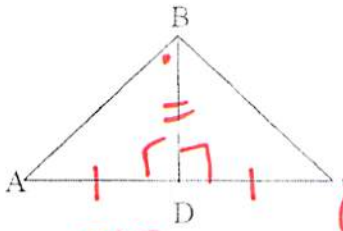
CPCTC

Name_____ Class Period_____

CPCTC says that: corresponding Parts of congruent Triangles are congruent.

In order to prove using CPCTC you first need to show the triangles are congruent using: ASA, SSS, SAS, HL, or AAS

Then you can show that other parts of the triangle are congruent using CPCTC.



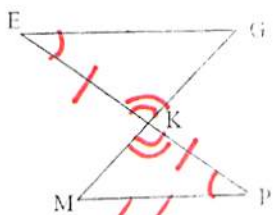
SAS

Given: $\overline{BD} \perp \overline{AC}$

D is the midpoint of $\overline{AC}$

Prove: $\angle A \cong \angle C$

Statements	Reasons
1	1) Given
2) $\overline{AD} \cong \overline{DC}$	2) Def. of Midpoint.
3) $\overline{BD} \cong \overline{BD}$	3) Reflexive Prop.
4) $\angle ADB$ & $\angle BDC$ are Rt. $\angle$'s	4) Def. of $\perp$
5) $\angle ADB \cong \angle BDC$	5) Rt. $\angle$ Thrm.
6) $\triangle ADB \cong \triangle BDC$	6) SAS
7) $\angle A \cong \angle C$	7) CPCTC



ASA

Given: $\angle E \cong \angle P$

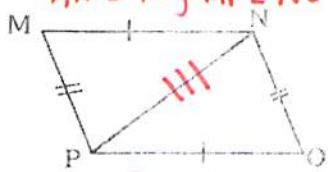
K is the midpoint of $\overline{EP}$

Prove: $\overline{EG} \cong \overline{MP}$

Statements	Reasons
1) $\angle E \cong \angle P$, K is midpoint $\overline{EP}$	1) Given
2) $\overline{EK} \cong \overline{KP}$	2) Def. of Midpoint.
3) $\angle EKG \cong \angle MKP$	3) Vertical $\angle$'s
4) $\triangle EKG \cong \triangle MKP$	4) ASA
5) $\overline{EG} \cong \overline{MP}$	5) CPCTC

. Given: MN≅PO, MP≅NO

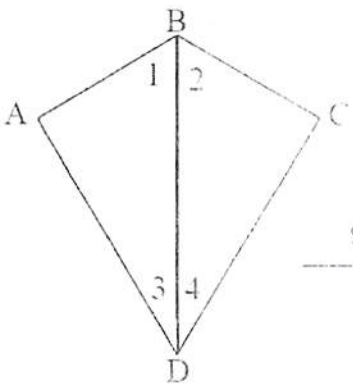
MN ≅ PO, MP ≅ NO



SSS

Prove: ∠M≅∠O

Statements	Reasons
① MN ≅ PO, MP ≅ NO	① Given
② PN ≅ PN	② Reflexive Prop.
③ ΔMPN ≅ ΔNPO	③ SSS
④ ∠M ≅ ∠O	④ CPCTC



Given: $\angle A \cong \angle C$

$\angle 1 \cong \angle 2$

Prove: $\overline{BD}$ bisects $\angle ADC$

Statements	Reasons

. Given: $\overline{AB} \| \overline{DE}$, ∠CBD≅∠ADB

Prove: $\overline{BC} \cong \overline{AD}$

Statements	Reasons