

Cornell Notes

Name: \_\_\_\_\_

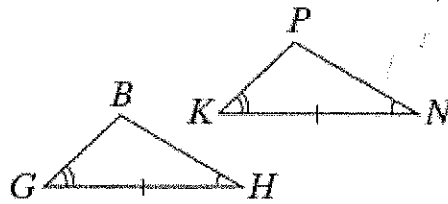
Date: \_\_\_\_\_

Main Ideas/Questions

4.3

Title of Notes: **Congruent Triangles Part 2**

**III. Angle-Side-Angle (ASA) Postulate:** If two angles and the included side of one triangle are congruent to the corresponding parts of another triangle, the triangles are congruent.

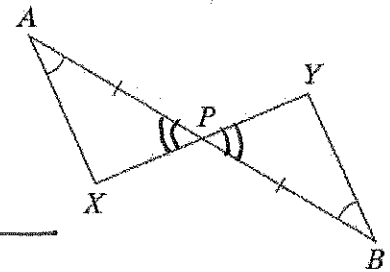


$$\triangle GBH \cong \triangle KPN$$

EX. Prove using ASA

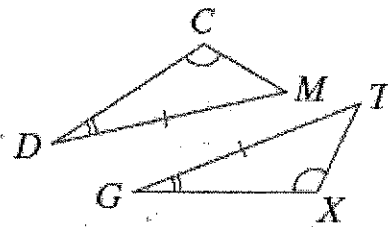
Given:  $\angle A \cong \angle B$ ,  $\overline{AP} \cong \overline{BP}$

Prove:  $\triangle APX \cong \triangle BPY$



Conclusions	Reasons
$\angle A \cong \angle B$	Given
$\overline{AP} \cong \overline{BP}$	Given
$\angle APX \cong \angle BPY$	vertical $\angle$ s are congruent
$\triangle APX \cong \triangle BPY$	ASA

**IV. Angle-Angle-Side (AAS) Postulate:** If two angles and the non-included side of one triangle are congruent to the corresponding parts of another triangle, the triangles are congruent.



$$\triangle CDM \cong \triangle GTX$$

Main Ideas/Questions

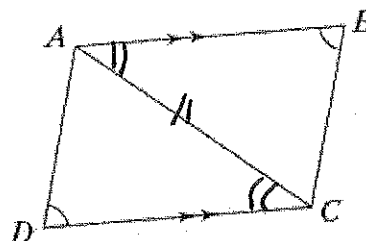
Title of Notes: **Cont'd Part 2**

Given:  $\angle B \cong \angle D$ ;  $\overline{AB} \parallel \overline{DC}$

Given:  $\angle A \cong \angle B$ ,  $\overline{AP} \cong \overline{BP}$

Prove:  $\triangle APY \cong \triangle BPY$

Prove:  $\triangle ADC \cong \triangle CBA$



Conclusions	Reasons
$\angle B \cong \angle D$	Given
$\overline{AB} \parallel \overline{DC}$	Given
$\angle BAC \cong \angle DCA$	alt. int. $\angle$ thm.
$\overline{AC} \cong \overline{AC}$	Reflexive Property
$\triangle ADC \cong \triangle CBA$	AAS

Practice

1-6 State the postulate or theorem that would prove the following pairs of triangle congruent.

- SSS
- SAS
- AAS
- ASA

