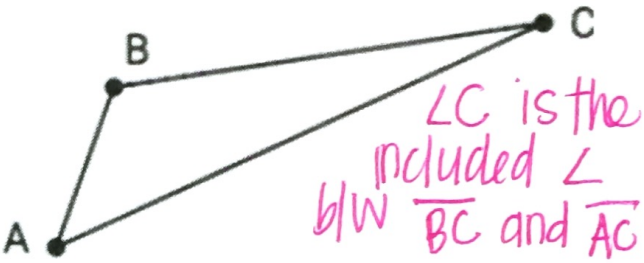
Sec 1 H | **Notes 8-4** SSS & SAS | **Unit 8**

Congruent: "equal" exactly the same measurement.

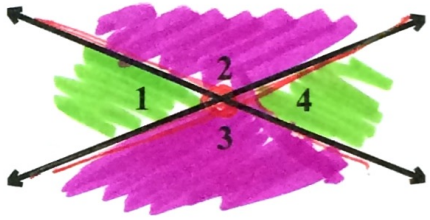
≅

Included Angle:
angle between two sides



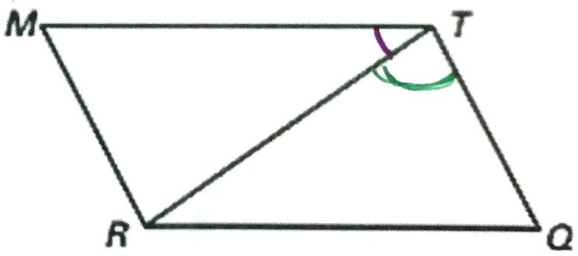
∠C is the included ∠ b/w $\overline{BC}$ and $\overline{AC}$

Shared Side:
Reflexive property. same line shared b/w two triangles



Vertical Angles:
∠'s directly across an intersection when 2 straight lines form an X.

Ex. 1: Use the diagram to name the included angle between the pair of sides given.



a) $\overline{MT}$ and $\overline{TR}$

∠T
∠MTR

b) $\overline{TQ}$ and $\overline{RT}$

∠QTR
∠RTQ

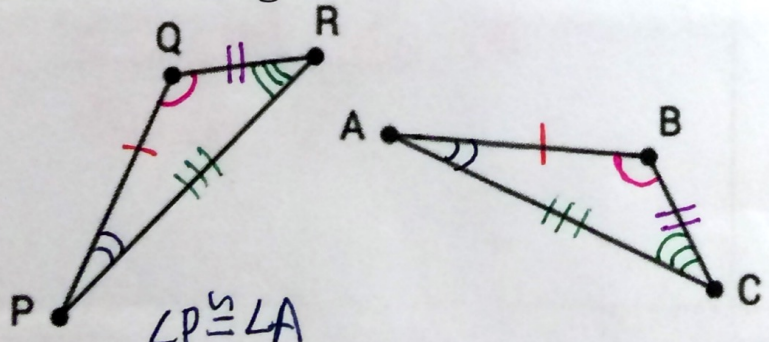
c) $\overline{MR}$ and $\overline{TM}$

∠M
∠RMT OR ∠TMR

d) $\overline{TQ}$ and $\overline{QR}$

∠Q
∠RQT OR ∠TQR

Ex. 2: Given $\triangle ABC \cong \triangle PQR$, label and name the pairs of corresponding sides and angles.



$\overline{BA} \cong \overline{QP}$

$\overline{QR} \cong \overline{BC}$

$\overline{CA} \cong \overline{RP}$

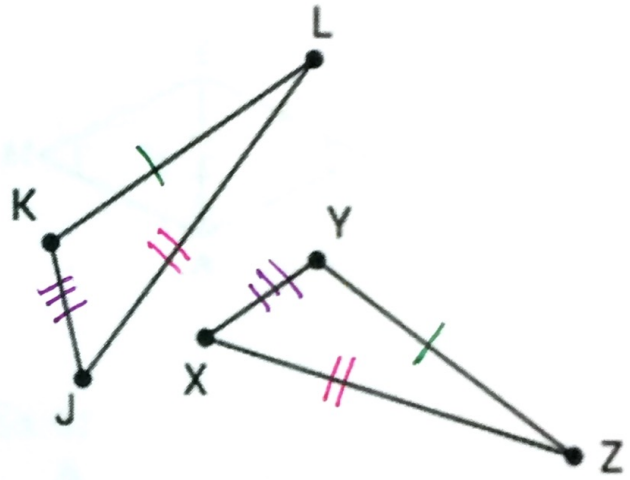
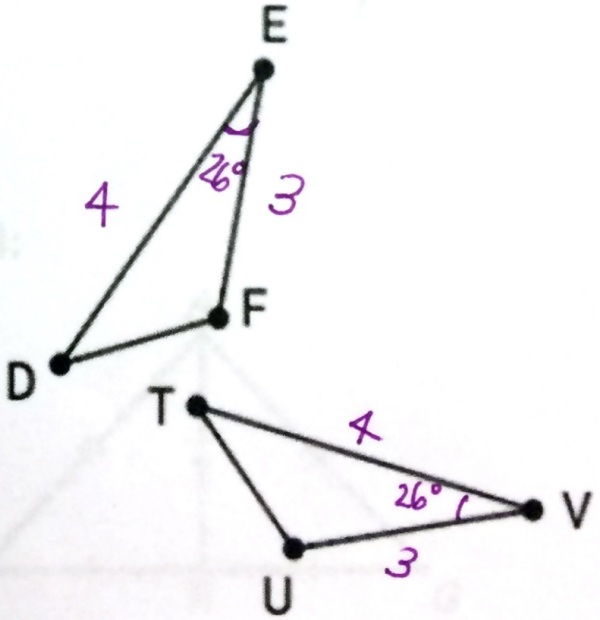
∠P ≅ ∠A

∠R ≅ ∠C

∠Q ≅ ∠B

Notes 8-4

Sec 1 H **Pythagorean Theorem & Simplify Roots** **Unit 8**

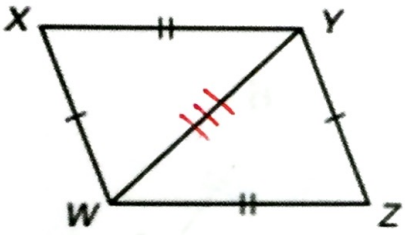
Postulate/Theorem	Picture
Side-Side-Side (SSS) Congruence Postulate: 3 sides that correspond with 3 sides in another △. △'s are ≅.	
Side-Angle-Side (SAS) Congruence Postulate: ∄ one side, an included angle, and a second side correspond with one side, an included angle ∄ a second side on another △.	

Notes 8-4

Sec 1 H **Pythagorean Theorem & Simplify Roots** **Unit 8**

Decide whether enough information is given to prove that the triangles are congruent. If there is enough information, state the congruence postulate you would use.

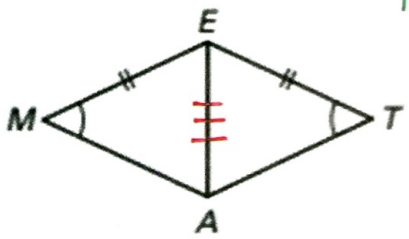
Ex. 3:



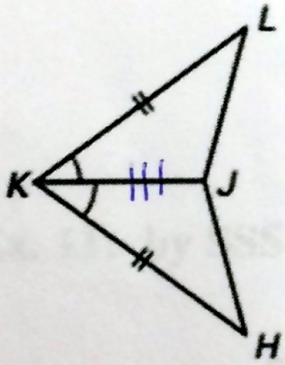
SSS

Ex. 4:

None

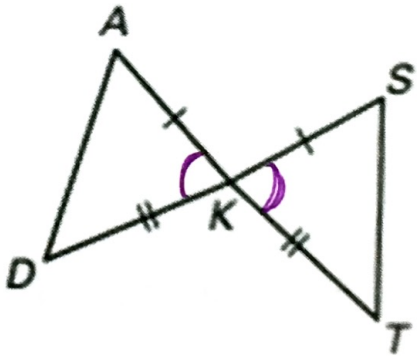


Ex. 5:



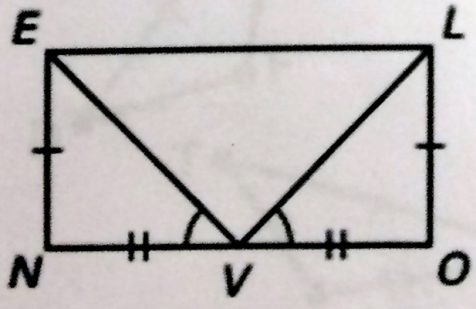
SAS

Ex. 6:



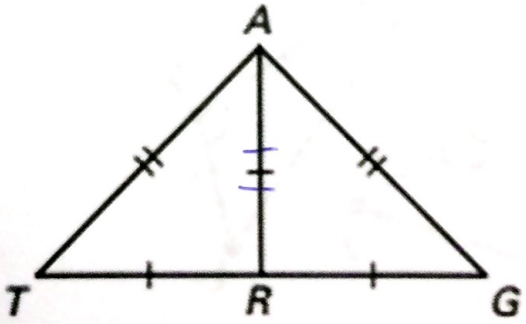
SAS

Ex. 7:



NONE

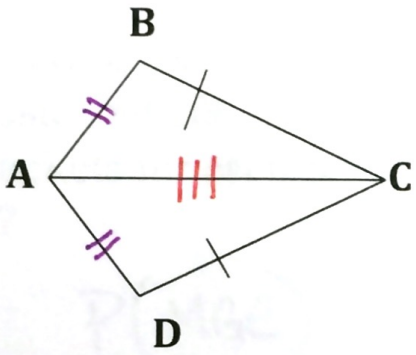
Ex. 8:



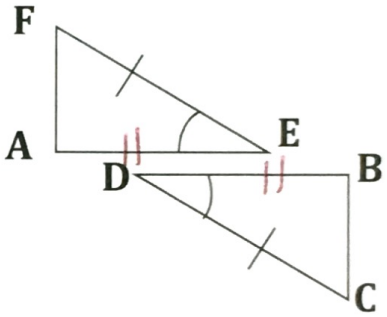
SSS

In each of the following pairs of triangles, add the required markings in order to know that the triangles are congruent by the given postulate.

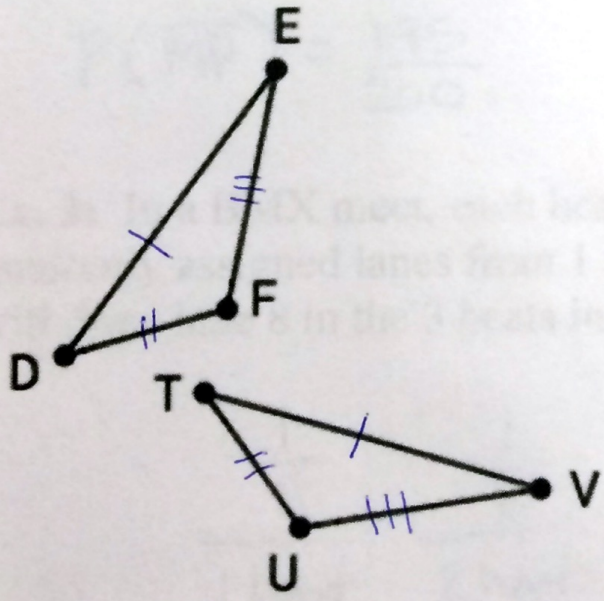
Ex. 9: by SSS



Ex. 10: by SAS



Ex. 11: by SSS



Ex. 12: by SAS