

ESSENTIAL QUESTION:

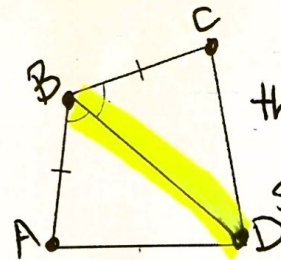
What information is helpful when proving 2 triangles are  $\cong$ ?

QUESTIONS:

NOTES:

Given - this is a reason used when what you are stating in a proof is marked in a diagram or stated as given

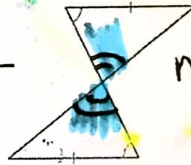
Reflexive Property -



this property is used to state if a line segment

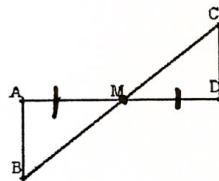
is congruent to itself, ex:  $\overline{BD} \cong \overline{BD}$

Vertical angles -



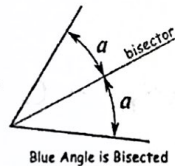
not marked on diagram, but  $\cong$

Midpoint



divides line segment into 2  $\cong$  parts  
ex: point M is midpoint of  $\overline{AD}$

Bisect



line/segment/ray divides an angle or line into 2  $\cong$  parts  
segment

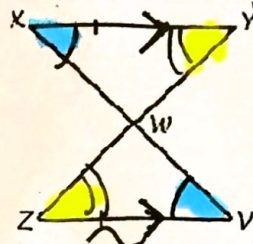


TES:

ex.  $\overline{XY} \parallel \overline{ZV}$

Parallel lines & their angles -  
Symbol:  $\parallel$

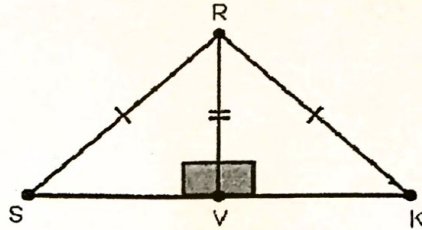
marked with arrows  
on the diagram



parallel lines have  
the same slope

Alternate interior angles  $\cong$ , not marked on diagram.

Perpendicular lines & their angles -  
Symbol:  $\perp$



x.  $\overline{SK} \perp \overline{RV}$  Create  $2 90^\circ$  angles:  $\angle RVS$  and  $\angle RVK$

List the six corresponding parts of the congruent triangles. Mark the congruences on the figure.

	$\angle A \cong \angle D$	$\overline{AB} \cong \overline{DE}$
	$\angle B \cong \angle E$	$\overline{BC} \cong \overline{FE}$
	$\angle C \cong \angle F$	$\overline{AC} \cong \overline{FD}$

Corresponding Parts of Congruent Triangles are Congruent (CPCTC) -

IF 2 or more triangles are proven to be  $\cong$ ,  
then all corresponding angles and sides ~~are~~  $\cong$