

Cannot prove using SSA Reference!

PROVING TRIANGLES CONGRUENT

Ways to Prove Triangles are Congruent:

SSS (Side-Side-Side)	Three pairs of congruent sides.	
SAS (Side-Angle-Side)	Two sides and an included angle.	
ASA (Angle-Side-Angle)	Two angles and an included side.	
AAS (Angle-Angle-Side)	Two angles and a side opposite them.	
HL (Hypotenuse-Leg)	The hypotenuse and any one leg of a right triangle.	

Reasons Sides are Congruent	<ul style="list-style-type: none"> It's Given Definition of Midpoint (A midpoint will create two congruent sides.) Reflexive Property (A side is congruent to itself.)
Reasons Angles are Congruent	<ul style="list-style-type: none"> It's Given Vertical Angles Alternate Interior Angles } Must have parallel lines Alternate Exterior Angles } Corresponding Angles } Definition of Angle Bisector (A bisector will create two congruent angles.)

CPCTC
Corresponding parts of Congruent Triangles are Congruent

IF $\triangle ABC \cong \triangle DEF$, then

$\angle A \cong \angle D$
 $\angle B \cong \angle E$
 $\angle C \cong \angle F$
 $AB \cong DE$
 $BC \cong EF$
 $AC \cong DF$

Triangle Congruence:

SSS, SAS, ASA, AAS, HL

Directions: Compare the triangles and determine whether they can be proven congruent, if possible, by SSS, SAS, ASA, AAS, or HL. Write your answer in the box.

1.		ASA
2.		SSS
3.		AAS
4.		HL
5.		NOT
6.		ASA
7.		SAS
8.		SSS
9.		AAS
10.		HL
11.		NOT
12.		SAS