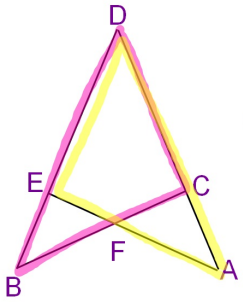
1. Given: $\overline{BD} \cong \overline{AD}$ and $\angle B \cong \angle A$

Which triangles are congruent?

Write the proof.



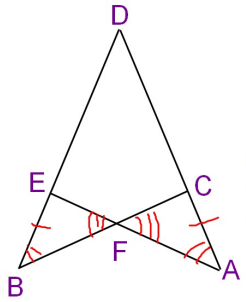
Statement	Reason
1. $\overline{BD} \cong \overline{AD}$ and $\angle B \cong \angle A$	1. Given
2. $\angle D \cong \angle D$	2. Reflexive Prop
3. $\triangle BDC \cong \triangle ADE$	3. ASA

ASA

2. Given: $\overline{BE} \cong \overline{AC}$ and $\angle B \cong \angle A$

Which triangles are congruent?

Write the proof.

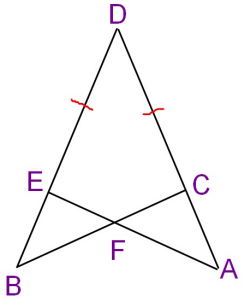


Statement	Reason
1. $\overline{BE} \cong \overline{AC}$ and $\angle B \cong \angle A$	1. Given
2. $\angle CFA \cong \angle EFB$	Vertical $\angle$s
3. $\triangle CAF \cong \triangle EBF$	AAS

3. Given: $\overline{CD} \cong \overline{ED}$ and $\angle B \cong \angle A$

Which triangles are congruent?

Write the proof.

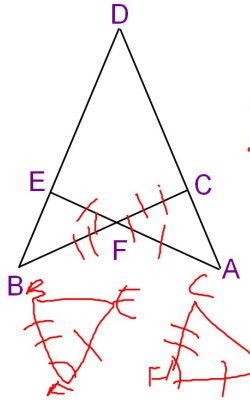


Statement	Reason
1. $\overline{CD} \cong \overline{ED}$ and $\angle B \cong \angle A$	1. Given
2. $\angle D \cong \angle D$	2. Reflexive
3. $\triangle AED \cong \triangle BCA$	3. AAS

4. Given: $\overline{BC}$ & $\overline{AE}$ bisect each other.

Which triangles are congruent?

Write the proof.



Statement	Reason
1. $\overline{BC}$ & $\overline{AE}$ bisect each other.	1. Given
2. $\angle EFB \cong \angle AFC$	2. Vertical
3. $\overline{EF} \cong \overline{AF}$	3. def of bisect
$\overline{CF} \cong \overline{BF}$	
4) $\triangle EFB \cong$	4) SAS

Why SSA (or if you write it backwards #!!) doesn't guarantee congruent triangles.

1. Turn a sheet of paper sideways so that the longer side is horizontal.
2. Draw a long horizontal segment near the bottom of the paper starting about an inch from the left edge and ending about an inch from the right edge.
3. Label the left endpoint A.
4. Construct a 30° angle at A. Draw the other side of angle A so that it is 12 cm long.
5. Label the other endpoint of the 12cm segment Point B.
6. Everybody should have AS right now. (Angle A=30° and AB = 12cm)
7. Starting at Point B draw BC so that it is 7cm long and C is on the orginal segment that you drew at the bottom of the page.
8. Compare your triangle with everybody else.

9. Does everybody have the same triangle?

There are two possible triangles so SSA can't be used to show two triangles are congruent since you can't narrow it down to just one possible triangle..