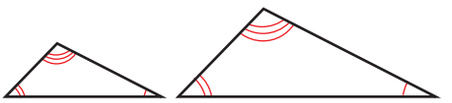
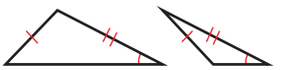
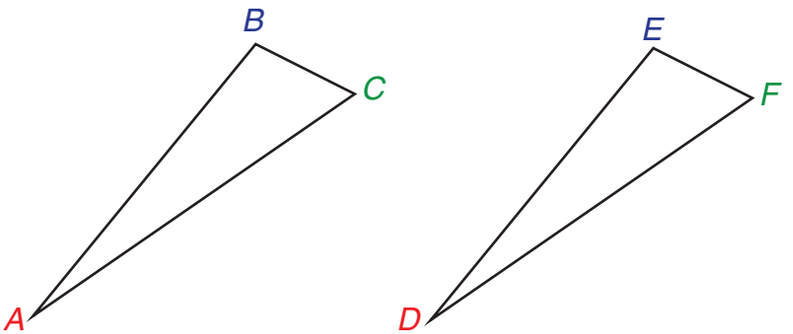
The following are **NOT** congruence rules.

NOT a Congruence Rule	Description	Diagram
Angle-Angle-Angle (AAA)	The three corresponding angles of the triangle are equal.	
Side-Side-Angle (SSA)	Two corresponding sides are equal and a non-contained angle is equal.	

Congruent triangles can be represented using the $\cong$ symbol.

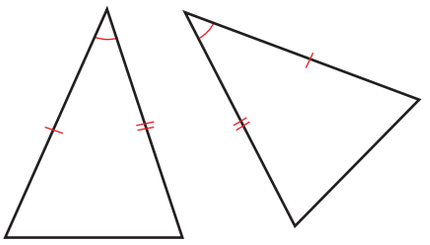
When using the notation $\Delta ABC \cong \Delta DEF$, $\angle A$ corresponds to $\angle D$, $\angle B$ to $\angle E$, and $\angle C$ to $\angle F$.



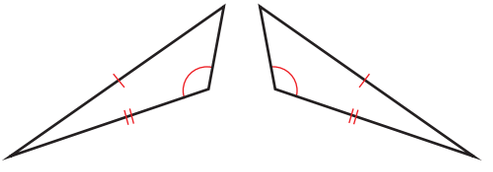
Practice Run

Which of the following pairs of triangles can you be sure are congruent? Explain how you know.

a



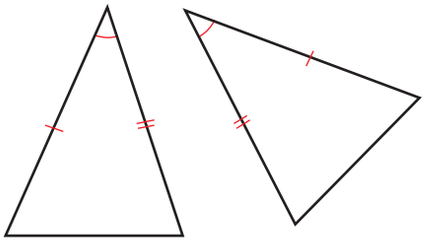
b.



Compare your answers.

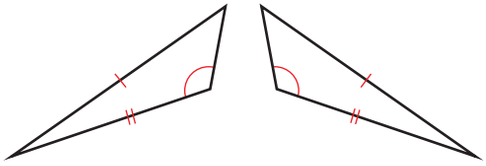
Which of the following pairs of triangles can you be sure are congruent? Explain how you know.

a.



This pair must be congruent by the SAS congruence.

b.



This pair is an example of SSA and so the triangles are not guaranteed to be congruent. (They MAY be congruent, but the information provided does not make it certain.)

B. Proofs with Congruent Triangles

The congruence rules you saw in the last section can be used in proofs. Information required for the proof will often be given in the form of a diagram and/or text. Sometimes you will need to draw additional information to complete a proof.