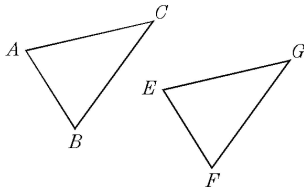


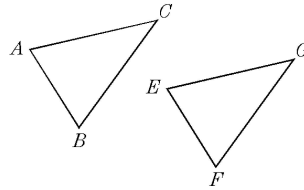
# Triangle Congruency

State the triangle proof, if there is one, that can be used to prove the two triangles in the diagram are congruent. If there is a pair of congruent corresponding parts that are not stated explicitly, also state that congruency.

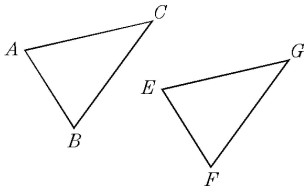
1. In the figure below,  $AC = EG$ ,  $AB = EF$ , and  $BC = GF$ .



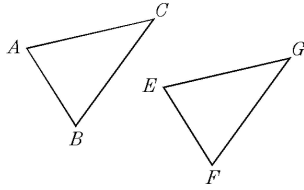
2. In the figure below,  $AC = EG$ ,  $m\angle A = m\angle E$ , and  $BC = GF$ .



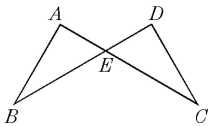
3. In the figure below,  $AC = EG$ ,  $m\angle A = m\angle E$ , and  $AB = EF$ .



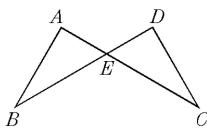
4. In the figure below,  $m\angle C = m\angle G$ ,  $m\angle A = m\angle E$ , and  $m\angle B = m\angle F$ .



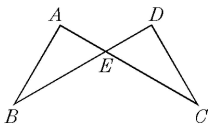
5. In the figure below,  $AE = DE$ , and  $BE = CE$ .



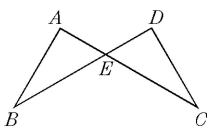
6. In the figure below,  $AE = DE$ , and  $m\angle A = m\angle D$ .



7. In the figure below,  $AB = CD$ , and  $AE = DE$ .

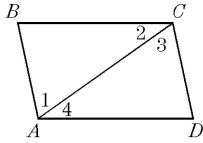


8. In the figure below,  $\overline{BD}$  and  $\overline{AC}$  bisect each other.

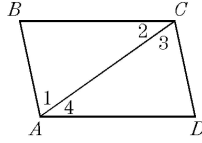


# Triangle Congruency

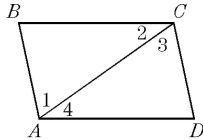
9. In the figure below,  $AB = CD$  and  $BC = AD$ .



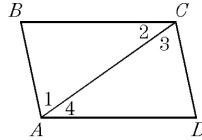
10. In the figure below,  $AB = CD$  and  $m\angle 1 = m\angle 3$ .



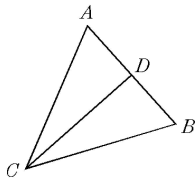
11. In the figure below,  $AB = CD$  and  $m\angle 4 = m\angle 2$ .



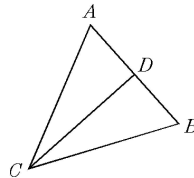
12. In the figure below,  $AD = BC$ , and  $\overline{AD} \parallel \overline{BC}$ .



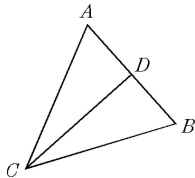
13. In the figure below,  $AC = BC$ , and  $D$  is the midpoint of  $\overline{AB}$ .



14. In the figure below,  $\overline{AB} \perp \overline{CD}$ , and  $D$  is the midpoint of  $\overline{AB}$ .



15. In the figure below,  $\overline{CD}$  is the angle bisector of  $\angle ACB$ , and  $CD \perp AB$ .



16. In the figure below,  $\overline{CD}$  is the angle bisector of  $\angle ACB$ , and  $AC = AD$ .

