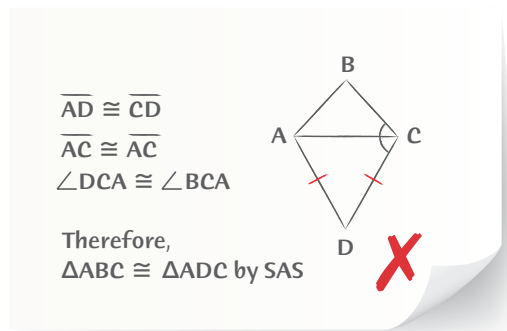


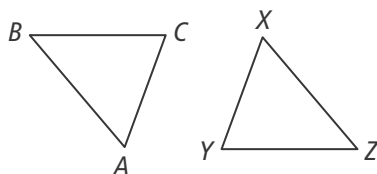


UNDERSTAND

12. **Error Analysis** Zhang says $\triangle ABC$ is congruent to $\triangle ADC$. Explain the error in Zhang's work.

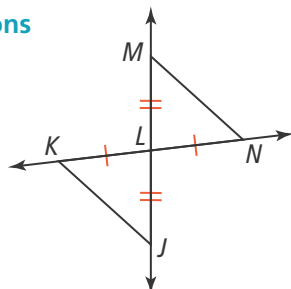


13. **Construct Arguments** Given $\triangle ABC \cong \triangle XYZ$, use a rigid motion to prove Theorem 4-4, Corresponding Parts of Congruent Triangles are Congruent.

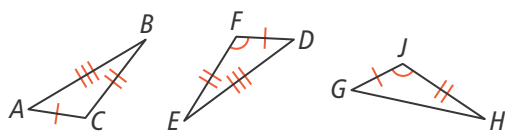


14. **Mathematical Connections**

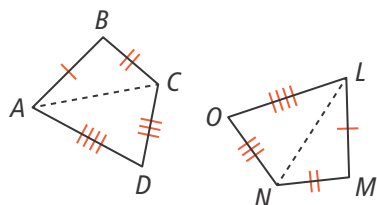
Is $\triangle JKL$ congruent to $\triangle MNL$? Explain.



15. **Make Sense and Persevere** Why is $\triangle ABC \cong \triangle GHJ$?

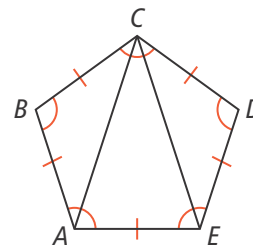


16. **Higher Order Thinking** Given quadrilaterals $ABCD$ and $LMNO$, and $\overline{AC} \cong \overline{LN}$, how can you show that the corresponding angles of the quadrilaterals are congruent?

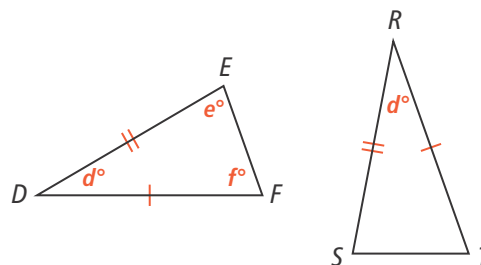


PRACTICE

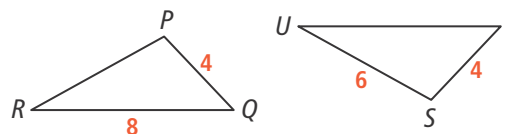
17. Prove $\triangle ACE$ is an isosceles triangle.
SEE EXAMPLES 1 AND 2



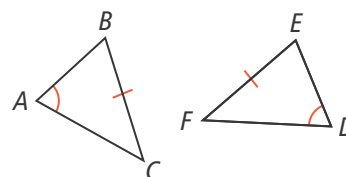
18. What is $m\angle RTS$? Justify your answer.
SEE EXAMPLES 1 AND 2



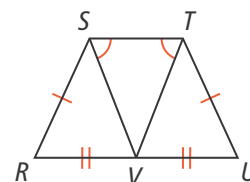
19. What additional information is needed to show that $\triangle PQR \cong \triangle STU$ by SSS? SEE EXAMPLE 3



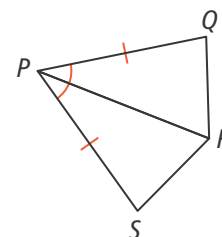
20. What additional information is needed to show that $\triangle ABC \cong \triangle DEF$? SEE EXAMPLE 3



21. Is $\triangle RSV \cong \triangle UTV$? Explain.
SEE EXAMPLE 4

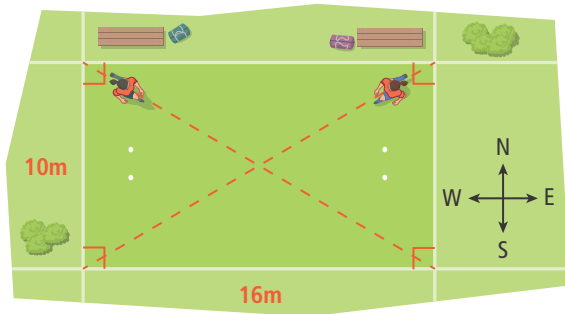


22. Is $\triangle PQR \cong \triangle PSR$? Explain.
SEE EXAMPLE 4

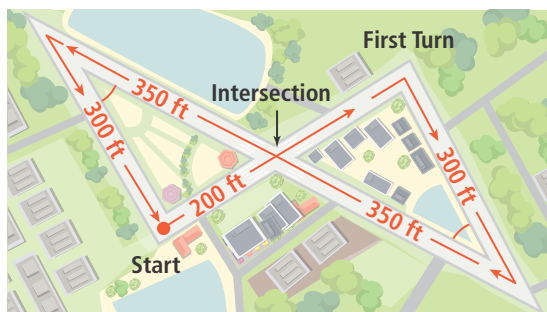


APPLY

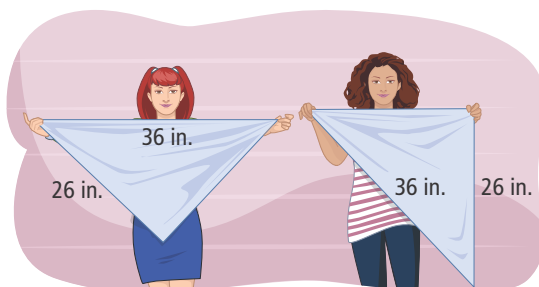
23. **Critique Reasoning** Kathryn runs from the northwest corner to the southeast corner of a rugby field and Mia runs from the northeast corner to the southwest corner. Mia says she ran farther. Is she correct? Explain.



24. **Reason** Following the route shown, what is the total distance traveled by the architectural tour if it ends where it started? What properties and theorems did you use to find the distance?

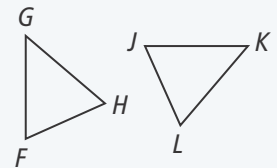


25. **Make Sense and Persevere** Justice and Leah both made a triangular scarf. Do the scarves have the same size and shape? What do you notice about the information that is given?



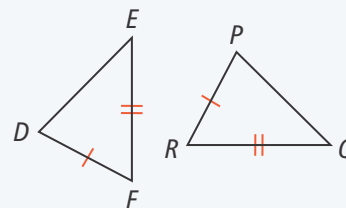
ASSESSMENT PRACTICE

26. Which sets of congruent parts are sufficient to conclude that $\triangle FGH \cong \triangle JKL$? Select Yes or No.



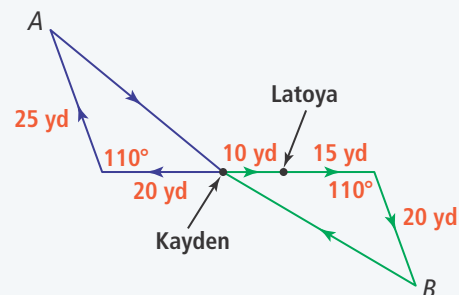
	Yes	No
$\overline{FG} \cong \overline{JK}, \overline{GH} \cong \overline{KL}, \overline{FH} \cong \overline{JL}$		
$\overline{FG} \cong \overline{JK}, \overline{FH} \cong \overline{JL}, \angle FGH \cong \angle JKL$		
$\overline{GH} \cong \overline{KL}, \overline{FG} \cong \overline{JK}, \angle FGH \cong \angle JKL$		
$\overline{GH} \cong \overline{KL}, \overline{FH} \cong \overline{JL}, \angle FGH \cong \angle JKL$		

27. **SAT/ACT** Consider $\triangle DEF$ and $\triangle PQR$. Which additional piece of information would allow you to conclude that $\triangle DEF \cong \triangle PQR$?



- (A) $\angle D \cong \angle P$ (C) $\angle D \cong \angle Q$
 (B) $\angle E \cong \angle Q$ (D) $\angle F \cong \angle R$

28. **Performance Task** In a marching band show, Kayden and Latoya start 10 yards apart. Kayden marches the path in blue and Latoya marches the path in green.



Part A Are the triangles formed by the paths congruent? Explain.

Part B Are the angle measures that Kayden and Latoya turn at points A and B the same? Explain.