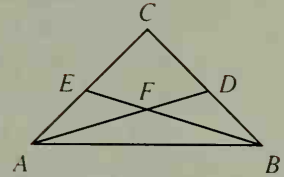


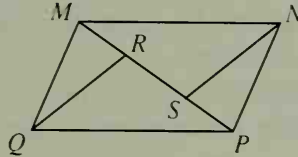
Self-Test 3

- Suppose you wish to prove $\triangle AFE \cong \triangle BFD$. If you have already proved $\triangle ABE \cong \triangle BAD$, what corresponding parts from this second pair of congruent triangles would you use to prove the first pair of triangles congruent?

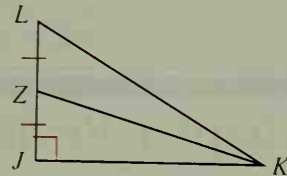


- Given: $\triangle MPQ \cong \triangle PMN$;
 $\overline{MS} \cong \overline{PR}$

Prove: $\triangle MSN \cong \triangle PRQ$



- In $\triangle JKL$ name each of the following.
 - an altitude
 - a median
- Note that $ZL = ZJ$. Can you deduce that \overrightarrow{KZ} bisects $\angle LKJ$?



- \overrightarrow{UV} bisects $\angle WUX$. Write the theorem that justifies the statement that V is equidistant from \overrightarrow{UW} and \overrightarrow{UX} .
- In $\triangle ABC$, $AB = 7$ and $BC = 7$. Write the theorem that allows you to conclude that B is on the perpendicular bisector of \overline{AC} .

Chapter Summary

- Congruent figures have the same size and shape. Two triangles are congruent if their corresponding sides and angles are congruent.
- We have five ways to prove two triangles congruent:
 SSS SAS ASA AAS HL (rt. \triangle)
- A common way to prove that two segments or two angles are congruent is to show that they are corresponding parts of congruent triangles.
- A line and plane are perpendicular if and only if they intersect and the line is perpendicular to all lines in the plane that pass through the point of intersection.
- If two sides of a triangle are congruent, then the angles opposite those sides are congruent. An equilateral triangle is also equiangular, with three 60° angles.