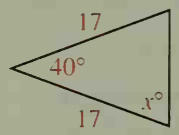
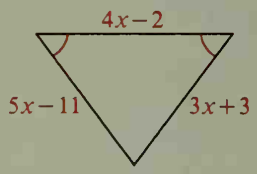
Self-Test 2

Find the value of x.

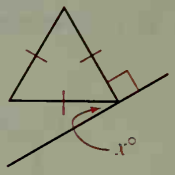
1.



2.



3.

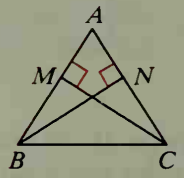


4. Given: $\overline{AB} \cong \overline{AC}$; $\overline{BN} \perp \overline{AC}$; $\overline{CM} \perp \overline{AB}$

Explain how you could prove that $\triangle ABN \cong \triangle ACM$.

5. Given: $\overline{MB} \cong \overline{NC}$; $\overline{BN} \perp \overline{AC}$; $\overline{CM} \perp \overline{AB}$

Prove: $\overline{CM} \cong \overline{BN}$



More about Proof in Geometry

Objectives

1. Prove two triangles congruent by first proving two other triangles congruent.
2. Apply the definitions of the median and the altitude of a triangle and the perpendicular bisector of a segment.
3. State and apply the theorem about a point on the perpendicular bisector of a segment, and the converse.
4. State and apply the theorem about a point on the bisector of an angle, and the converse.

4-6 *Using More than One Pair of Congruent Triangles*

Sometimes two triangles that you want to prove congruent have common parts with two *other* triangles that you can easily prove congruent. You may then be able to use corresponding parts of these other triangles to prove the original triangles congruent.