

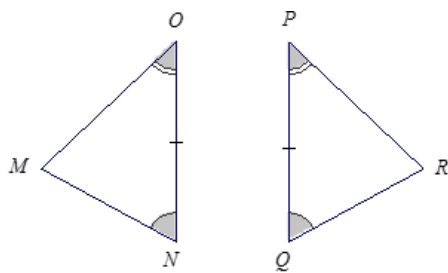
Lesson Summary

The measurement and arrangement (and correspondence) of the parts in each triangle play a role in determining whether two triangles are identical.

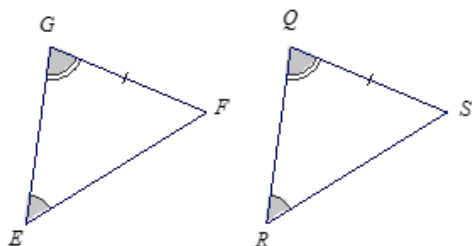
Problem Set

In each of the following four problems, two triangles are given. State whether the triangles are *identical*, *not identical*, or *not necessarily identical*. If the triangles are identical, give the triangle conditions that explain why, and write a triangle correspondence that matches the sides and angles. If the triangles are not identical, explain why. If it is not possible to definitively determine whether the triangles are identical, write “the triangles are not necessarily identical,” and explain your reasoning.

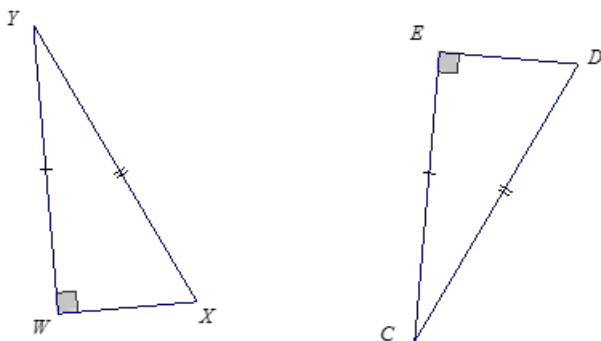
1.



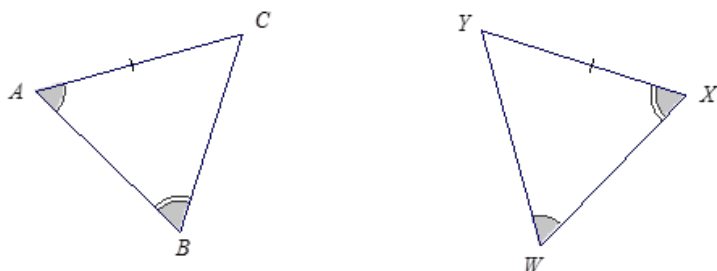
2.



3.



4.



For Problems 5–8, three pieces of information are given for $\triangle ABC$ and $\triangle YZX$. Draw, freehand, the two triangles (do not worry about scale), and mark the given information. If the triangles are identical, give a triangle correspondence that matches equal angles and equal sides. Explain your reasoning.

5. $AB = YZ, BC = ZX, AC = YX$
6. $AB = YZ, BC = ZX, \angle C = \angle Y$
7. $AB = XZ, \angle A = \angle Z, \angle C = \angle Y$
8. $AB = XY, AC = YZ, \angle C = \angle Z$ (Note that both angles are obtuse.)