

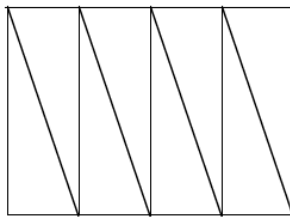
Lesson Summary

- In deciding whether two triangles are identical, examine the structure of the diagram of the two triangles to look for a relationship that might reveal information about corresponding parts of the triangles. This information may determine whether the parts of the triangle satisfy a particular condition, which might determine whether the triangles are identical.
- Be sure to identify and label all known measurements, and then determine if any other measurements can be established based on knowledge of geometric relationships.

Problem Set

1. Jack is asked to cut a cake into 8 equal pieces. He first cuts it into equal fourths in the shape of rectangles, and then he cuts each rectangle along a diagonal.

Did he cut the cake into 8 equal pieces? Explain.



2. The bridge below, which crosses a river, is built out of two triangular supports. The point M lies on \overline{BC} . The beams represented by \overline{AM} and \overline{DM} are equal in length, and the beams represented by \overline{AB} and \overline{DC} are equal in length. If the supports were constructed so that $\angle A$ and $\angle D$ are equal in measurement, is point M the midpoint of \overline{BC} ? Explain.

