## Geometry Software Lesson Opener

## Use geometry software to construct the triangles described.

1. Construct several scalene triangles. For each triangle, measure the sides to verify that no sides are congruent. Then measure all the angles. How many congruent angles does a scalene triangle have?

2. Construct several isosceles triangles that have exactly two congruent sides. For each triangle, measure the sides to verify that exactly two sides are congruent. Then measure all the angles. How many congruent angles does this type of isosceles triangle have? On paper, sketch one of your triangles and mark the congruent sides and angles.
3. Construct several equilateral triangles. For each triangle, measure the sides to verify that they are all congruent. Then measure all the angles. How many congruent angles does an equilateral triangle have? On paper, sketch one of your triangles and mark the congruent sides and angles.

4. Make a conjecture about the number of congruent sides and the number of congruent angles of any triangle. Write your conjecture in if-then form.
5. Write the converse of your conjecture. Do you think the converse is true? If not, explain why not. If so, write a biconditional statement to summarize your findings.
