Classroom Exercises

What can you deduce? Name the theorem that supports your answer.

1.
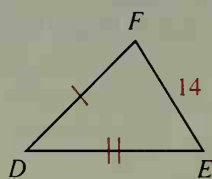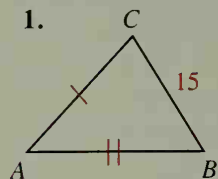
2.
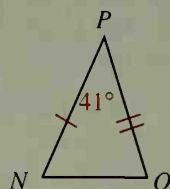
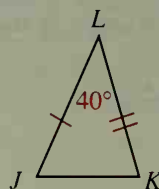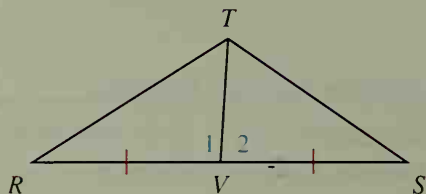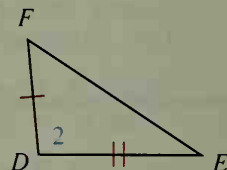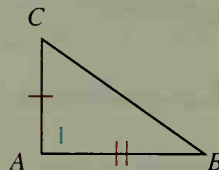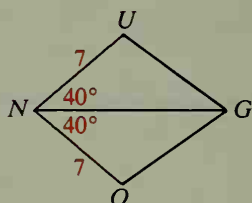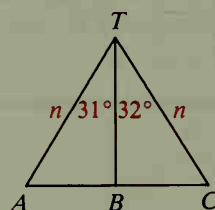**3.** $m \angle 1 > m \angle 2$

4. $\angle 1$ is a rt. $\angle$; $\angle 2$ is an obtuse $\angle$.
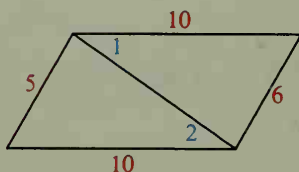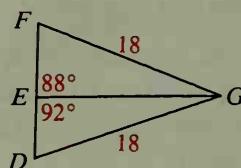

5.

6.

7.

8.

You will need a centimeter ruler and a protractor for Exercises 9 and 10.

9. a. Draw an isosceles triangle with legs 7 cm long and a vertex angle of 120°. Measure the length of the base of the triangle.
   b. If you keep the legs at 7 cm in length but halve the measure of the vertex angle to 60°, what happens to the length of the base? What kind of triangle is this new triangle? What is the length of the third side?

10. a. Draw a right triangle with legs of 6 cm and 8 cm. Measure the length of the hypotenuse.
   b. If you keep the 6 cm and 8 cm sides the same lengths but halve the measure of the included angle to 45°, what happens to the length of the third side? Test your answer by drawing the new triangle.