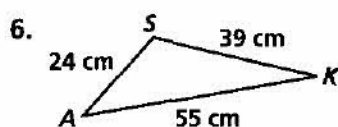
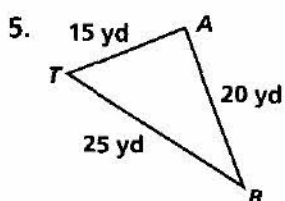
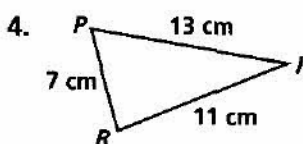
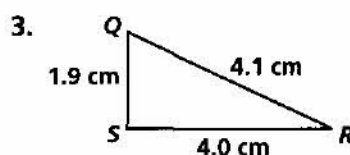
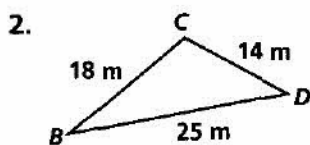
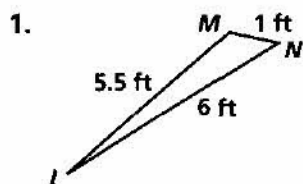


Practice 5-5

Inequalities in Triangles

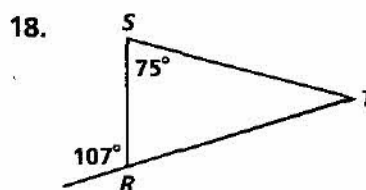
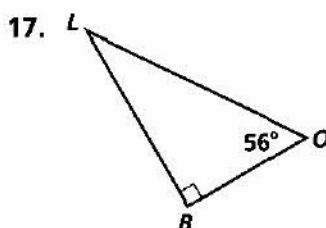
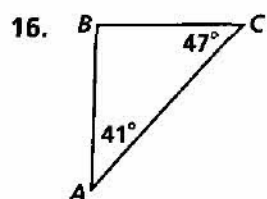
Determine the two largest angles in each triangle.



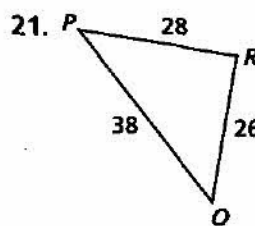
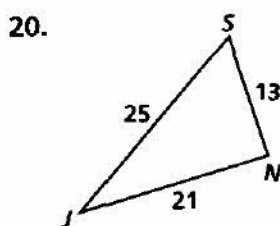
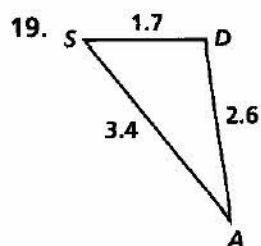
Can a triangle have sides with the given lengths? Explain.

- | | | |
|--------------------------------|---|-----------------------------|
| 7. 4 m, 7 m, and 8 m | 8. 6 m, 10 m, and 17 m | 9. 4 in., 4 in., and 4 in. |
| 10. 1 yd, 9 yd, and 9 yd | 11. 11 m, 12 m, and 13 m | 12. 18 ft, 20 ft, and 40 ft |
| 13. 1.2 cm, 2.6 cm, and 4.9 cm | 14. $8\frac{1}{2}$ yd, $9\frac{1}{4}$ yd, and 18 yd | 15. 2.5 m, 3.5 m, and 6 m |

List the sides of each triangle in order from shortest to longest.



List the angles of each triangle in order from largest to smallest.



The lengths of two sides of a triangle are given. Describe the lengths possible for the third side.

- | | | |
|------------------|-----------------|--------------------|
| 22. 4 in., 7 in. | 23. 9 cm, 17 cm | 24. 5 ft, 5 ft |
| 25. 11 m, 20 m | 26. 6 km, 8 km | 27. 24 in., 37 in. |