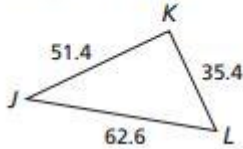# Chapter 6.5 – Inequalities in One Triangles

Write an indirect proof of each statement.

1. Write the angles in order
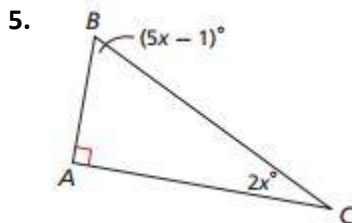   from smallest to largest.

Tell whether a triangle can have sides with the given lengths. Explain.

2. 6, 10, 15

3. 11.9, 5.8, 5.8

4. $z + 8, 3z + 5, 4z - 11$, when $z = 6$

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

5.

Compare. Write <, >, or =.

6. QS ▧ PS

7. QS ▧ QR

8. PQ ▧ RS

9. m∠ABE ▧ m∠BEA

10. m∠DCE ▧ m∠DEC

11. m∠ABE ▧ m∠EAB