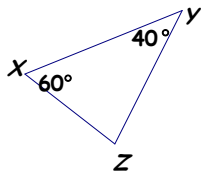


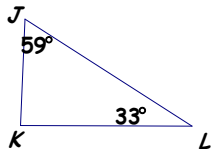
## Triangle Inequality

~ 1 ~

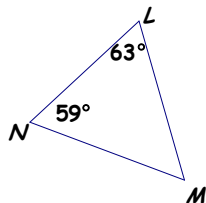
1. Name the shortest side of  $\triangle XYZ$ .



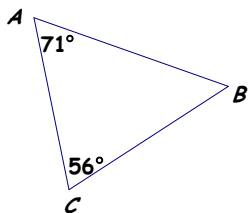
2. Name the longest side of  $\triangle JKL$ .



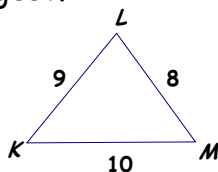
3. Name the largest angle of  $\triangle LMN$ .



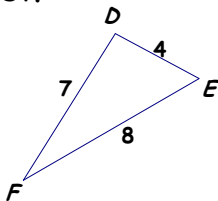
4. Name the smallest angle of  $\triangle ABC$ .



5. List the angles in order from the smallest to largest.

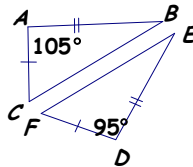


6. List the angles in order from largest to smallest.



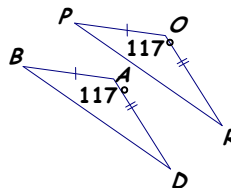
Complete with  $<$ ,  $>$ , or  $=$ . (7-10)

7.



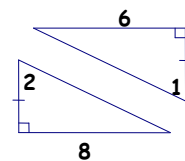
$\angle A$  \_\_\_\_\_  $\angle D$

8.



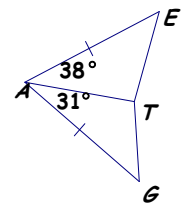
$\overline{PR}$  \_\_\_\_\_  $\overline{BD}$

9.



$\angle 1$  \_\_\_\_\_  $\angle 2$

10.

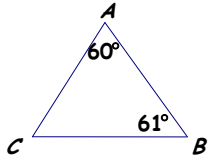


$\overline{ET}$  \_\_\_\_\_  $\overline{TG}$

## Triangle Inequality

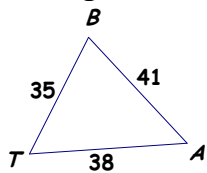
~ 2 ~

11. According to  $\triangle ABC$ , which is the longest side?



- A.  $\overline{BC}$
- B.  $\overline{AB}$
- C.  $\overline{AC}$
- D.  $\overline{AB}$  and  $\overline{AC}$  are congruent

12. According to  $\triangle BAT$ , which is the smallest angle?



- A.  $\angle T$
- B.  $\angle A$
- C.  $\angle B$
- D.  $\angle B$  and  $\angle A$  are congruent

13. If one side of a triangle is 12 cm and the other is 16 cm. Which inequality describes the possible lengths of the third side?

- A.  $4 < x < 12$
- B.  $4 < x < 28$
- C.  $12 < x < 16$
- D.  $16 < x < 28$

14. **Given:**  $AB + AC > BC$

**Prove:**  $x < 7$

