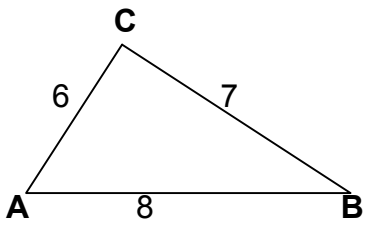
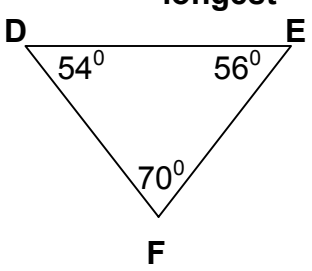
Name _____ Date _____

Section 5-5 Triangle Inequality Worksheet

1. List the <u>angles</u> from smallest to largest



2. List the <u>sides</u> from shortest to longest



Can the lengths given be the lengths of the sides of a triangle?

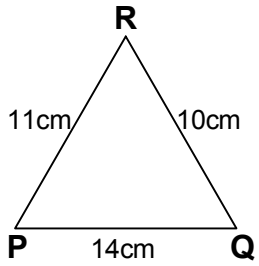
3. 5cm, 3cm, 7cm

4. 8cm, 3 cm, 4cm

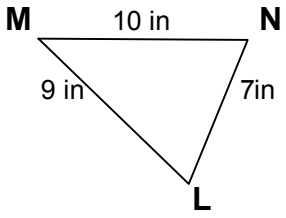
5. 4cm, 6cm, 2cm

List the <u>angles</u> of each triangle from smallest to largest.

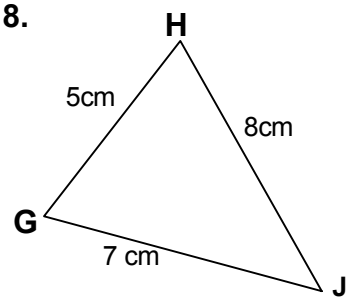
6.



7.

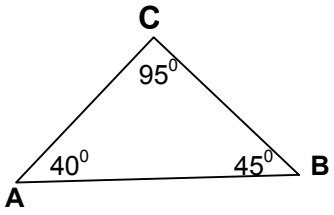


8.

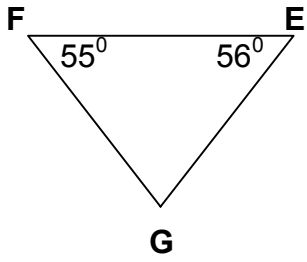


List the <u>sides</u> of each triangle from shortest to longest..

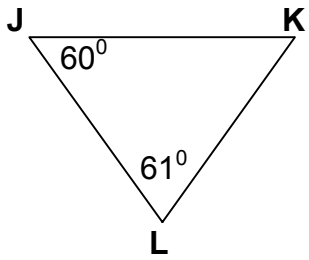
9.



10.



11.



The lengths of the sides of a triangle are given. List the <u>angles</u> of each triangle from smallest to largest. (Hint: Draw a picture)

12. AB = 5cm BC= 7 cm AC= 10 cm

13. DE= 12 cm EF= 10 cm DF= 15 cm

The measures of the angles of a triangle are given. List the <u>sides</u> of each triangle from shortest to longest. (Hint: Draw a picture)

14. $m\angle R = 35^0$, $m\angle S = 120^0$, $m\angle T = ?^0$

15. $m\angle X = 70^0$, $m\angle Y = 60^0$, $m\angle Z = ?^0$

Can the lengths given be the lengths of the sides of a triangle?

16. 5cm, 3cm, 9cm

17. 6cm, 6 cm, 6cm

18. 8cm, 7cm, 2cm

The lengths of two sides of a triangle are given. What can you conclude about the length of the third side?

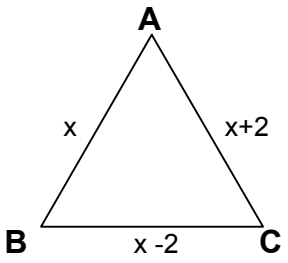
19. AB = 5 cm, BC = 12 cm
AC is between ____ and ____

20. JK= 12 cm, KL = 15 cm
JL is between ____ and ____

21. XY = 10cm YZ= 10cm
XZ is between ____ and ____

22. One ship is 25 miles from a lighthouse. Another ship is 10 miles from the lighthouse. What is the least possible distance between the ship? What is the greatest possible distance between ship?

23. List the <u>angles</u> of each triangle from smallest to largest.



24. The figure below is not drawn to scale. Which segment should be the longest? Why?