Name_____

Can it be a Triangle?

Cut straws the following lengths: 2 cm., 4 cm., 4 cm., 6 cm.,
6 cm., 8 cm., 9 cm.

Use the cut straws to determine if a triangle can be made with the lengtl
given below. For the lengths that work, use pipe cleaners to connect the
straws by bending them and inserting them into the straws.

1. 6 cm., 6 cm., 2 cm. _____

2. 4 cm., 6 cm., 8 cm. _____

3. 8 cm., 9 cm., 2 cm. _____

4. 4 cm., 2 cm., 8 cm. _____

5. 6 cm., 8 cm., 9 cm. _____

6. 6 cm., 4 cm., 4 cm. _____

7. 2 cm., 4 cm., 6 cm. _____

8. 4 cm., 4 cm., 9 cm. _____

9. 4 cm., 6 cm., 9 cm. _____

10. 2 cm., 8 cm., 8 cm._____

11. 9 cm., 2 cm., 6 cm._____

12. Why do some lengths not form a triangle?

13. What has to be true about the lengths to form a triangle?

14. Make a conjecture/generalization about the lengths of any
two sides of a triangle.

Name_____

Reflect and Apply

1. If two sides of a triangle have lengths 18 cm and 13 cm, the third side must be greater than_____ and less than_____. Explain your answer.

2. If two sides of a triangle have lengths a and b where b > a, the third side must be greater than_____ and less than_____.