

Triangle Legs Investigation

Name: Key Notes

Directions: Use any of the given angle-legs to make a triangle. Identify which 3 legs you used and sketch the triangle using the correct colors.

Red (14.14 cm)	Blue (12.24 cm)	Yellow (10 cm)	Green (8.66 cm)	Purple (7.07 cm)	Orange (5 cm)	Sketch
✓	✓	✓				
			✓	✓	✓	
	✓	✓	✓			
		✓		✓	✓	

Conclusion(s)? Triangle Inequality Thm.:

In order for side lengths to form a triangle, the length of the largest side must be smaller than the sum of the other 2 sides.

$$A < B + C \text{ if } A \text{ is the largest side length.}$$

Challenge: Combining all the sets at your table clumps, create 2 more triangle examples and 2 more non-examples. Sketch label all 4 examples with the appropriate colors.

Triangles	Non-Examples