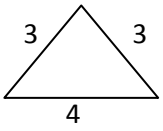
Triangle Categories [ ]

http://scottfarrar.googlepages.com/geom2009

Find **two** examples of each type of triangle. Sketch each one in the box and write down the side lengths. What do you notice about your triangles of that type? Do your two examples have anything in common? Do you think the whole category will have common characteristics?

Example:



Sides

0 congruent sides

Observations_____

_____

_____

2 congruent sides

Observations_____

_____

_____

3 congruent sides

Observations_____

_____

_____

Angles

No angles $\geq 90°$

Observations_____

_____

_____

One angle $= 90°$

Observations_____

_____

_____

One angle $> 90°$

Observations_____

_____

_____

3 congruent angles

Observations_____

_____

_____

Triangle Side Limits

True or False: I can make a triangle with sides $3, 5, 10$.

Go back to the Geometry 2009 page and choose (2) Triangle Side Limits. Set a and b then drag A to see all of the possible lengths c could be that still makes a triangle.

a	b	What are the possible lengths for c?
4	6	
3	6	
7	2	
5	1	
1	1	
7	8	

Were you able to make all of the triangles when $a = 7$ and $b = 8$? Explain.

If $a = 15$ and $b = 11$ What is the smallest possible length for c? What is the largest possible length for c ?

Write a couple sentences to explain what is limiting the length of c. Write so that somebody who is not in our Geometry class would understand.