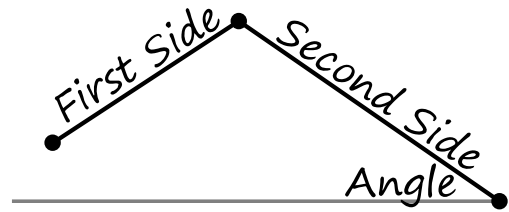


HOW MANY TRIANGLES: SIDE-SIDE-ANGLE

Acute Angle

Go to [geogebra.org/m/rsw7dspt](https://www.geogebra.org/m/rsw7dspt), and use the GeoGebra applet to complete the table below. With each given side length, how many triangles can you create? As you complete the table, look for a pattern.



Observations

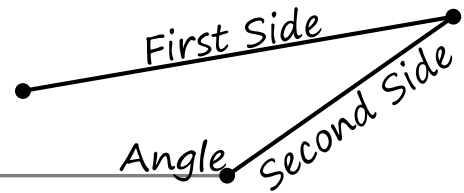
1 st Side Length	Number of Triangles	Compare the Side Lengths		
		1 st Side Length	< , = , >	2 nd Side Length
3		3		8
4		4		8
5		5		8
6		6		8
7		7		8
8		8		8
9		9		8
10		10		8
11		11		8
12		12		8

Summarize

Generalize what you observed. Write any patterns that you noticed.

Right or Obtuse Angle

Use the GeoGebra applet to complete the table below. With each given side length, how many triangles can you create? As you complete the table, look for a pattern.



Observations

2 nd Side Length	Number of Triangles	Compare the Side Lengths		
		2 nd Side Length	< , = , >	1 st Side Length
3		3		8
4		4		8
5		5		8
6		6		8
7		7		8
8		8		8
9		9		8
10		10		8
11		11		8
12		12		8

Summarize

Generalize what you observed. Write any patterns that you noticed.