Trigonometry Exploration 1

Use the triangles provided for you and the two new ones that you created to fill out the charts below. You will need to use a protractor to measure the angles.

Chart 1

Triangle ABC		**Triangle DEF**		**Triangle GHI**	
< A		< D		< G	
< B		< E		< H	
< C		< F		< I	
Side a		Side d		Side g	
Side b		Side e		Side h	
Side c		Side f		Side i	

How do the side-lengths of triangles DEF and GHI compare to those of triangle ABC?

How do the angles of triangles DEF and GHI compare to those of triangle ABC?

Chart 2

Calculate the following:

Ratio	Fraction	Decimal	Percentage
a/c			
b/c			
a/b			

Ratio	Fraction	Decimal	Percentage
d/f			
e/f			
d/e			

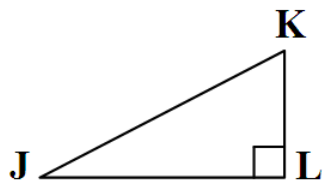
Ratio	Fraction	Decimal	Percentage
g/i			
h/i			
g/h			

What do you notice about the results found in these charts?

How would you explain these results to a classmate?

Compare your answers with a classmate.

If I created another triangle and labelled it JKL (see diagram below) and this triangle was a different size but exactly the same shape as ABC, what would the the following ratios be?



j / l =

k / l =

j / k =