

Name: _____

Period: _____

Date: _____

Geometry Lab 5

Can You Make a Triangle?

Break a piece of spaghetti into three pieces. Using your ruler, measure each piece in cm. and try to form a triangle by connecting the 3 spaghetti ends to each other. If a triangle is formed, record the lengths of the pieces in the table on the left below. If a triangle cannot be formed, record the lengths of the spaghetti pieces in the table on the right.

Do this 5 times beginning with a new piece of spaghetti each time. However, each time you break a piece of spaghetti in 3, try to make the pieces different sizes than the previous pieces of spaghetti you broke. Also, try not to break each piece of spaghetti into 3 even pieces each time.

Lengths of pieces that form a triangle

Lengths of pieces that don't form a triangle

1. Look at the lengths of each of the 3 pieces of spaghetti that did form triangles. Add the lengths of the two smaller sides and compare the sum to the length of the larger side. What do you notice about them?
2. Now look at the lengths of each of the 3 pieces of spaghetti that did not form triangles. Again, add the two smaller sides and compare the sum to the larger side. What do you notice about them?
3. To sum up your findings, what can you say about all triangles and the lengths of the sides?