**Investigation 1

Midpoint**: the point that cuts a line in half

1. Draw a large triangle and label its vertices (corners) ABC
2. Use a ruler to create a midpoint for AB. Label it X.
3. Use a ruler to create a midpoint for AC. Label it Y.
4. Join the points X and Y with a line.
5. Measure all the sides. Write them on the diagram.

Q: What do you notice about the length of XY and BC?

Q: What do you notice about the direction of the lines XY and BC?

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| The line segments joining the midpoint of two sides of a triangle is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the third side and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .  |

 **Investigation 2

Median**: A line from one vertex to the midpoint of the opposite side.

For a triangle, 

1. Draw a large, obtuse triangle. Label it ABC, with A at the obtuse angle
2. Draw the midpoint of BC, label it M
3. Draw the median from A to BC
4. Calculate the area of △ABM and △AMC (Measuring any lengths you need to find the area)

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| What does the median of a triangle do to the triangle’s area? |