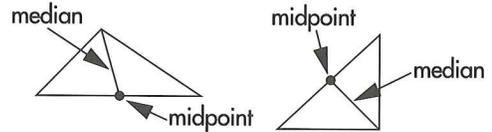




## Guided Investigation 3.3

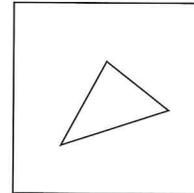
### THE MEDIANS OF A TRIANGLE

**Definition:** A **median** of a triangle is a segment that connects a vertex with the midpoint of the opposite side.

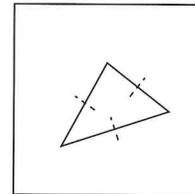


Like the perpendicular bisectors of the sides and the angle bisectors, there are three medians of every triangle. Do they also intersect in one point? Do this investigation to find out.

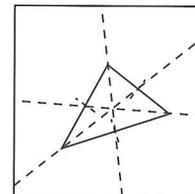
**Step 1:** Draw or fold a large acute scalene triangle on your patty paper.



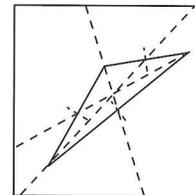
**Step 2:** Locate the midpoint of each side of your triangle by placing one vertex on top of another and pinching in the middle.



**Step 3:** To create a median, fold the paper so that the crease passes through a vertex and the midpoint of the opposite side. Construct all three medians (either by folding or by using your straightedge). What do you observe?



**Step 4:** Do you think this will also be true for obtuse triangles? Repeat steps 1–3 with an obtuse scalene triangle.

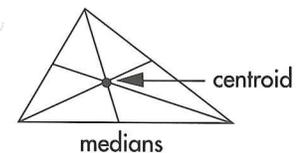


Your next patty paper conjecture could be:



**12** The three medians of a triangle \_\_\_\_\_.

**Definition:** The point of intersection of the three medians of a triangle is called the **centroid** of the triangle.



Write *Medians* on these patty papers and save them for Investigation 3.5.