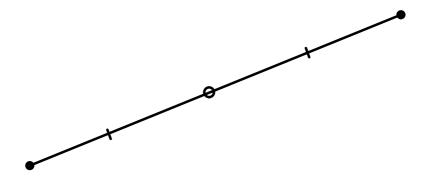
Mid Point

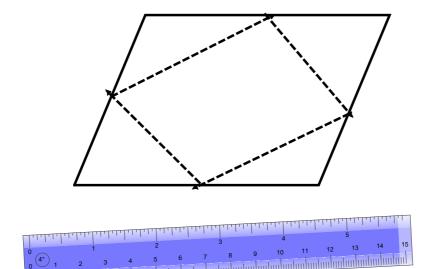
- a point on a line segment that is exactly in the middle



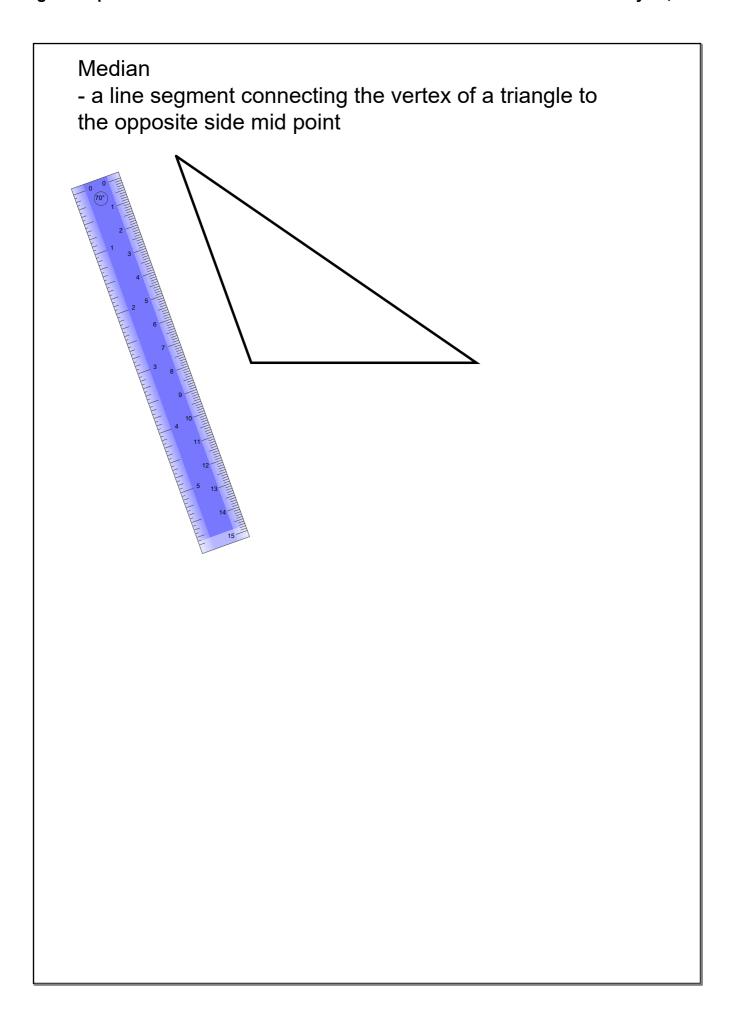
Midsegments

- connect the mid points of each side of a polygon with a line segment

Geometers Sketchpad example

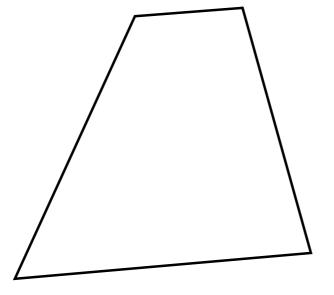


Conjecture - a guess or prediction based on limited evidence



Bimedian

- a line segment connecting the mid points on opposite sides of a quadrilateral



Mathematics

A CENTROID is the geometric center of an object.

A centroid can be found in a triangle by finding where the MEDIANS all intersect.

A centroid in a quadrilateral can be found where the BIMEDIANS intersect.

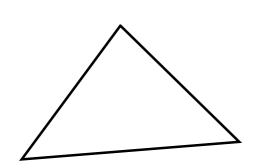
Physics/Science

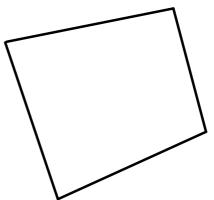
The center of mass (center of gravity) is the same as a centroid for a triangle, but is different for a quadrilateral.

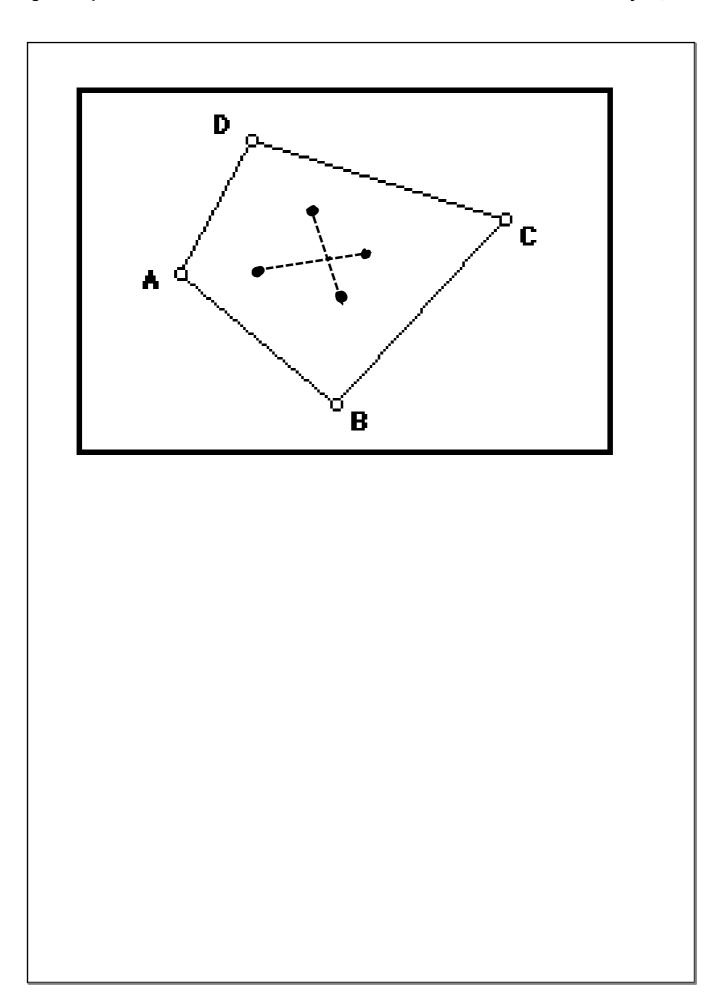
Task - Cut out a small triangle and quadrilateral from the construction paper provided.

Using a ruler and pencil, determine the Centroid (center of mass) of both shapes.

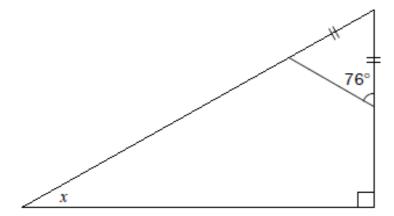
Test your creation by balancing the paper construction on a nail or finger.







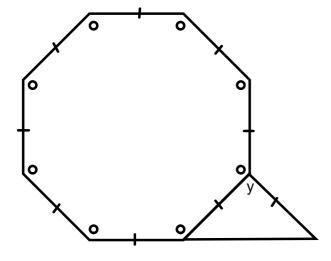
Consider the following diagram.

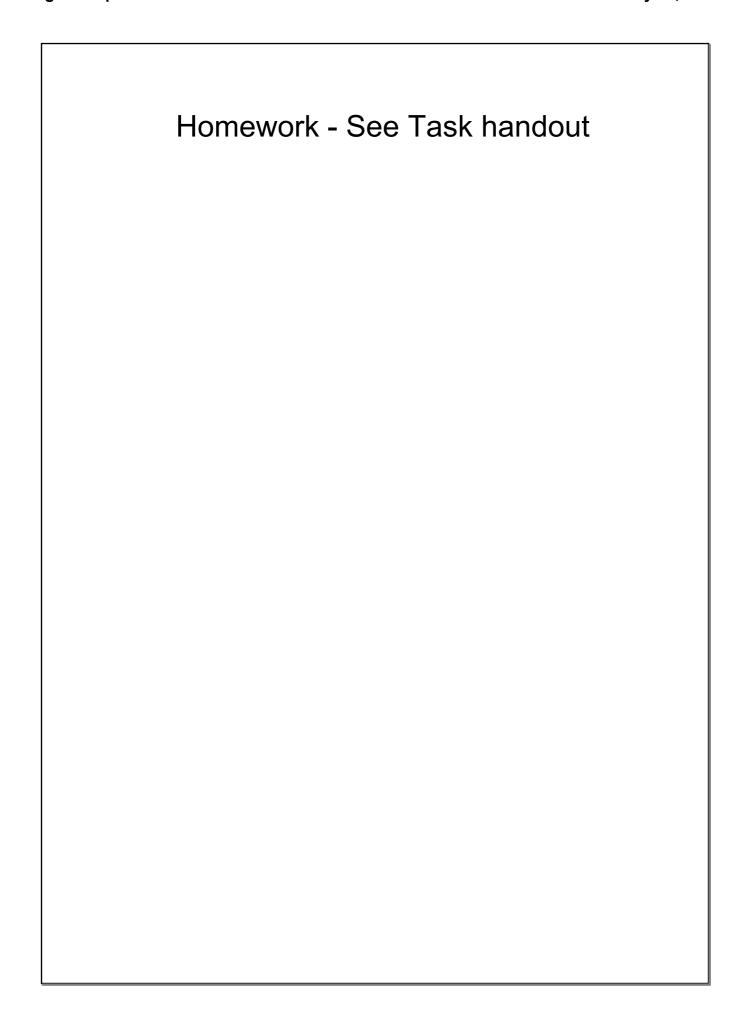


What is the value of x?

- a 14°
- b 28°
- c 62°
- $d 76^{\circ}$

Find the angle at "y", explain your thought process/solution technique.





quad_midsegs.gsp