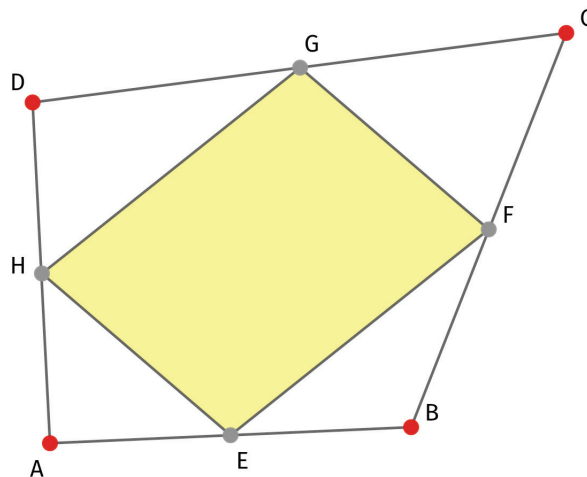


sketchometry

Explore the Midpoint Quadrilateral of a Quadrilateral

Construction

- ▶ Choose any four points and connect them to obtain a quadrilateral.
- ▶ Construct the midpoints E, F, G, and H of the sides.
- ▶ Connect these midpoints to get the midpoint quadrilateral EFGH.



Explore

- ▶ Drag any of the vertices A, B, C, and D and observe the midpoint quadrilateral. Which special shape do you find out?
Write your observation in your study journal. Draw the diagonals of quadrilateral ABCD as auxiliary lines. Support your conjecture with a proof.
- ▶ Show grid lines. Construct special types of quadrilaterals by placing the vertices of the quadrilateral ABCD on grid points.
Describe what kind of midpoint quadrilaterals you see.
Write your results with sketches and proofs in your study journal.