Workshop on Geometer's Sketchpad

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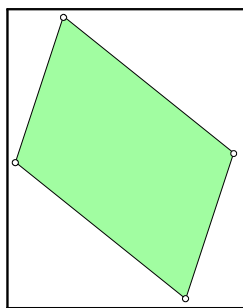
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Abstract

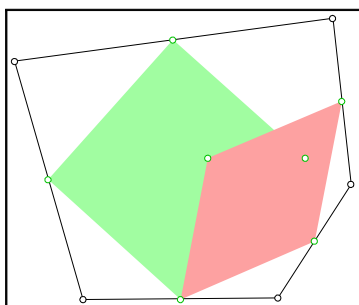In this workshop we are to solve this problem synthetically:

Given: five points on the plane that forms a convex pentagon.

To Construct: a pentagon with the given points as midpoints of the sides.

Preparation 1: Construct a parallelogram. See what geometric quantities can be adjusted after the construction.
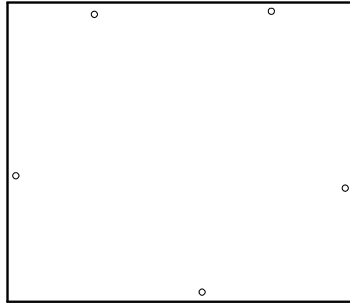

Preparation 2: Construct a pentagon. Construct the five midpoints. Explore the property of this configuration.
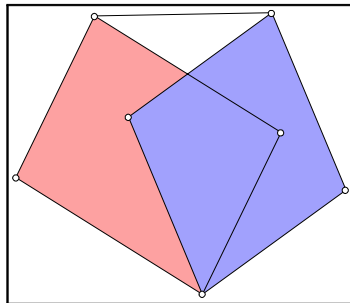
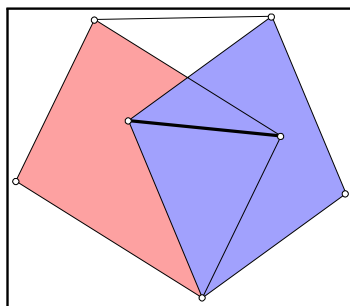# Solution of the main problem:
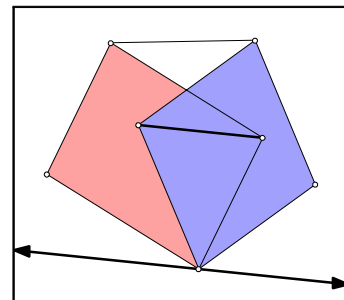
1. Construct five points.

2. Construct this figure.

3. Construct this line segment.

4. Draw the parallel line.

5. The rest is an exercise.