

Honors Geometry

Problem of the Week #2 — Tangram Area and Perimeter

5th, 7th periods: Due Tuesday January 21st, 2020 at the start of class

4th period: Due Wednesday January 22nd, 2020 at the start of class

Use a compass to construct a square with side lengths of 4 inches. Be sure the square is accurately constructed.

Draw one diagonal

Determine the midpoints of two consecutive sides of the square within one of the triangles. Draw the diagonal between them.

Construct the perpendicular bisector of the diagonal. Draw in the portion of the bisector shown.

Locate the midpoints of each half of the diagonal. Use those points to draw the last two segments needed for the tangram to be complete (seven pieces).

Now that all seven pieces are constructed:

- Determine the exact area of each piece (simplified radical form as needed) using calculations.
- Determine the exact perimeter of each piece (simplified radical form as needed) using calculations.

You must show all calculations for the area and perimeter and explain your work in a standard write up.

