

NAME: _____

1. If you know the diagonals of a rectangle are equal in length and also that they bisect each other, explain why the triangles formed by the diagonals are isosceles.
2. Does an isosceles triangle have rotational symmetry? Explain.
3. Find one or two examples of isosceles triangles in your environment.
4. If three sides of a triangle have equal lengths, then what is true about the angles opposite those sides?

If the diagonals \overline{AC} and \overline{BD} bisect each other at E , then $\overline{AE} \cong \overline{EC}$ and $\overline{BE} \cong \overline{ED}$. Since $\overline{AC} \cong \overline{BD}$, all
[1] four segments are equal. Thus, the triangles formed are isosceles.

[2] only if it is also equilateral

[3] Check students' work.

[4] the angles have equal measures