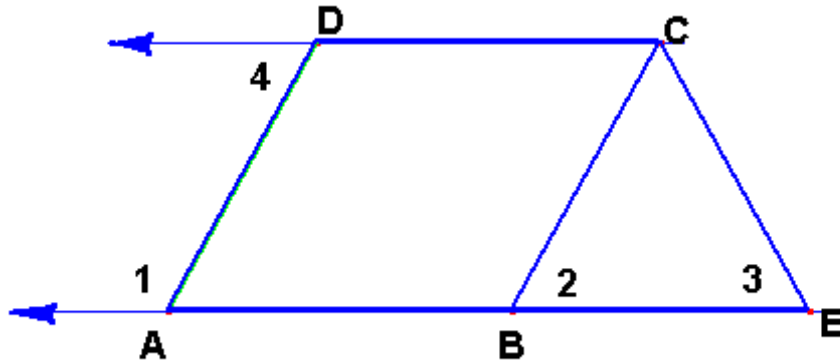


G.G.41 Justify that some quadrilaterals are parallelograms, rhombuses, rectangles, squares, or trapezoids

1. In the accompanying figure $m\angle 1 + m\angle 4 = 180^\circ$ and $\overline{DC} \cong \overline{AB}$. Prove that ABCD is a parallelogram.



2. Prove that a quadrilateral whose diagonals bisect each other must be a parallelogram.

3. Prove that a quadrilateral whose diagonals are perpendicular bisectors of each other must be a rhombus.