

On the left side of the diagram, triangle ABC has been reflected across line AC to form quadrilateral ABCD. ABC forms a triangle and so does ADC. Which makes it quadrilateral.

On the right side of the diagram, triangle ABC has been rotated 180 degrees using midpoint M as a center to form quadrilateral ABCE. ABC forms a triangle and so does ACE with the midpoint M it forms a quadrilateral.