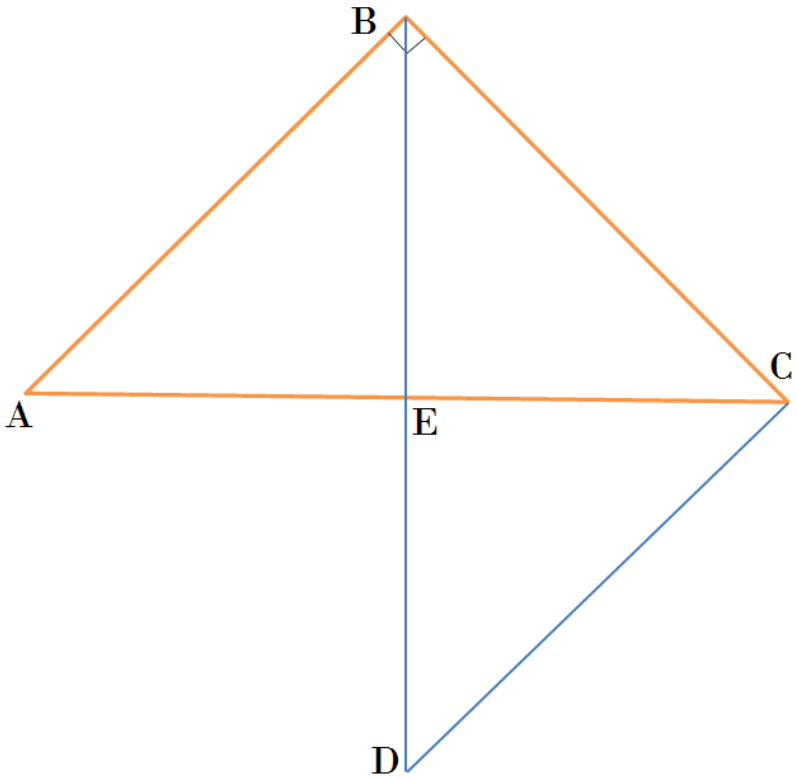
Solution.



We have $\measuredangle ABC$. We know that BE bisects $\angle ABC$. Then $\angle EBC = 45°$ (as a bisector) and $\angle BEC = 90°$ (as a height). So $\angle BCE = 180° - 45° - 90° = 45°$. We know that CE bisects $\angle DCB$ and from this it follows that $\angle ECD = 45°$. So we have a rectangular $ABCD$. It has two sides AB, CD which are parallel.

So $\boldsymbol{BA||CD}$.