

Given: Parallelogram ABCD

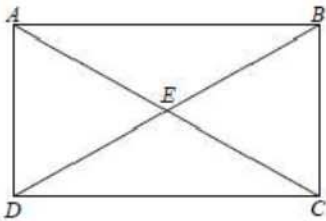
$$\triangle ABC \cong \triangle DCB$$

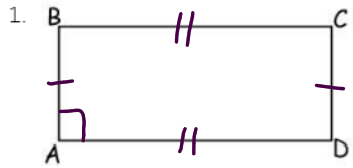
Prove: ABCD is a rectangle

statement	reason
① $\square P$ ABCD	① Given
② $\triangle ABC \cong \triangle DCB$	② Given
③ $\overline{AC} \cong \overline{BD}$	③ CPCTC
④ ABCD is a $\square R$	④ If the diagonals of a $\square P$ are \cong , it must be a $\square R$.

4) Given: Right triangle ABC with right angle ABC, \overline{BE} is a median, $\overline{BE} \cong \overline{ED}$

Prove: ABCD is a rectangle.

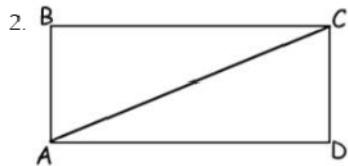




Given: $AB \cong CD, BC \cong AD$
 $\angle A$ is a right angle
 Prove: ABCD is a rectangle

Practice Problems

Statement	reason
① $\overline{AB} \cong \overline{CD}$ $\overline{BC} \cong \overline{AD}$ $\angle A$ is a right \angle	① Given
② ABCD is a $\square P$	② If both pairs of opposite sides are \cong , it must be a $\square P$
③ ABCD is a $\square R$	③ If there is one right \angle in a $\square P$ it must be a $\square R$.



Given: $\triangle ABC \cong \triangle CDA$
 $AB \perp BC$
 Prove: ABCD is a rectangle