



In ΔAPB and ΔBQA

$$\angle 1 = \angle 2 = 90^\circ$$

$$AB = AB$$

$$AP = BQ$$

$\Delta APB \cong \Delta BQA$ by R.H.S. rule

$$BP = AQ \text{ (C.P.C.T.)}$$

In ΔAOQ and ΔBOP

$$\angle 3 = \angle 4$$

$$\angle 1 = \angle 2 = 90^\circ$$

$$AQ = BP$$

$\Delta AOQ \cong \Delta BOP$ by rule

$$OQ = OP$$