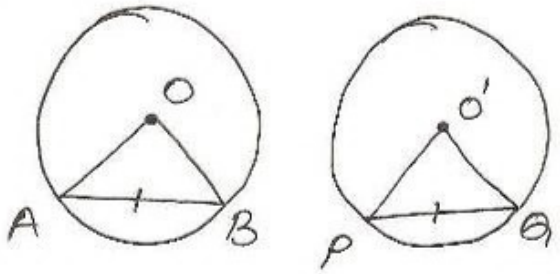
(1)



to prove $\angle AOB = \angle PO'Q$

proof - In $\triangle AOB$ and $\triangle PO'Q$

$OA = O'P$ [radii of cong. circles]

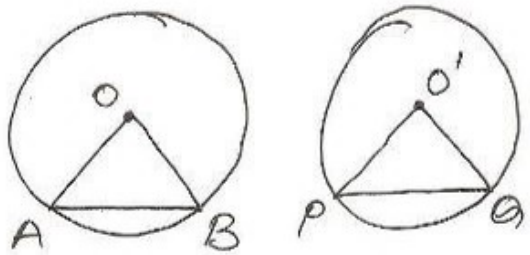
$OB = O'Q$

$AB = PQ$ [given]

$\therefore \triangle AOB \cong \triangle PO'Q$ by SSS prop.

$\angle AOB = \angle PO'Q$ (cpct)

(2)



to prove $AB = PQ$

proof In $\triangle AOB$ and $\triangle PO'Q$

$OA = O'P$ (radii of cong. ⊙s)

$\angle AOB = \angle PO'Q$ (given)

$OB = O'Q$

$\therefore \triangle AOB \cong \triangle PO'Q$ by SAS prop

$AB = PQ$ [cpct)