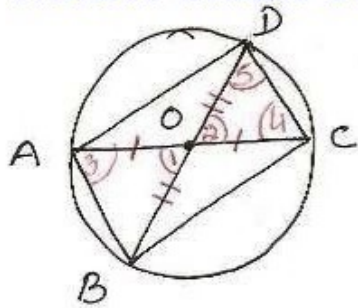


⑦



To prove (i) AC, BD are diameters

(ii) ABCD is a rectangle

Proof.

In \square , $OA = OC$ [given]
 $OB = OD$ [given]

\square ABCD is a \square

$$\angle DAB + \angle BCD = 180^\circ \text{ [opp. } \angle\text{s of a cyclic } \square]$$

• But $\angle DAB = \angle BCD$
 [opp. \angle s of a \square]

$$\therefore 2 \angle DAB = 180^\circ$$

$$\Rightarrow \angle DAB = 90^\circ$$

\Rightarrow BD is diameter

Similarly AC is diameter

\square ABCD is a rect.

$$[\because \angle DAB = 90^\circ]$$