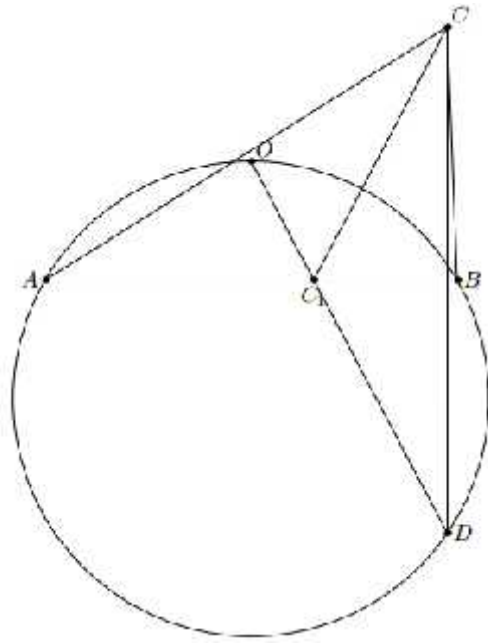


4. OC_1 , AOB , $AO=BO$, C AB , D , D



$$\angle ADO = \angle ODB.$$

$$\frac{AD}{BD} = \frac{AC_1}{BC_1} = \frac{AC}{BC}.$$

$$AD^2 - BD^2 = AC^2 - BC^2.$$

CD , AB ,

$$AD = AC \quad BD = BC.$$

$\triangle ABC$, $\triangle ABD$, AD , BD ,

AB , $[CC_1)$

AB , O_1 ,

O , O_1 -

$$\angle AOB = 120^\circ,$$

$$\angle ACB = 60^\circ.$$

$$: 60^\circ.$$

5.

$$n < 12. \quad 12$$

$$: 12 = 13 - 1 = 14 - 2.$$

$$, \quad 2 \quad 14 -$$

$$n \geq 12,$$

$$1 \quad 13$$

$$, \quad 2 \quad 14 -$$

11:

$$11 = 14 - 3 = 13 - 2 = 12 - 1.$$

$$, \quad 3$$

$$12 -$$

$$10$$

$$10 = 14 - 4 = 11 - 1$$

$$, \quad 4$$

$$, \quad 11 -$$

$$10$$

$$5, 6 \quad 7,$$

$$2, 3, 4, 5, 6, 7 \quad 14,$$

$$10, 9 \quad 8.$$

$$1, 8, 9, 10, 11, 12 \quad 13.$$

6,

$$n = 11$$

$$9, 10, 14,$$

$$8$$

$$1, 3, 4,$$

$$: 11.$$