

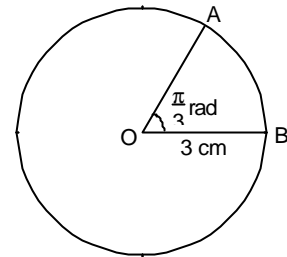
JU CHING CHU SECONDARY SCHOOL (T.M.)

MATHEMATICS TESTS

ON

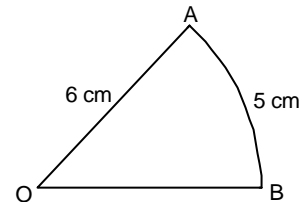
(Ch. 10 Some Important Formulae in Trigonometry)

1. The figure shows a circle with centre O and radius 3 cm. Find the length of \widehat{AB} if $\angle AOB = \frac{\pi}{3}$ rad. (Leave the answer in terms of π .)



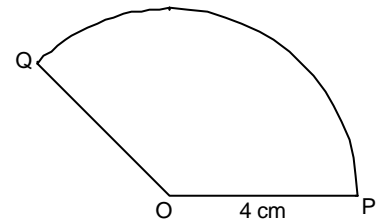
圖中顯示一半徑為 3cm 的圓，O 為圓心。若 $\angle AOB = \frac{\pi}{3}$ rad 求 \widehat{AB} 的長度。(答案以 π 表示)

2. The figure shows a sector OAB of radius 6 cm. If the length of $\widehat{AB} = 5$ cm, find the area of the sector.

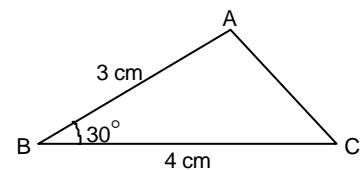


圖中扇形 OAB 半徑為 6 cm。若長度 $\widehat{AB} = 5$ cm，求扇形面積。

3. In the figure, OPQ is a sector of a circle with centre O and radius 4 cm. If the area of the sector is 6π cm², find $\angle POQ$.
圖中扇形 OPQ 半徑為 4 cm，若扇形面積為 6π cm²，求 $\angle POQ$ 。



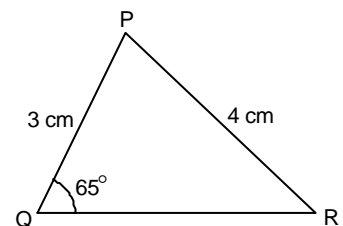
4. Find the area of $\triangle ABC$ with $AB = 3$ cm, $BC = 4$ cm and $\angle ABC = 30^\circ$.



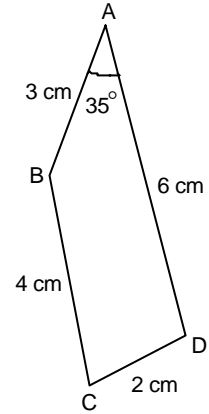
$AB = 3$ cm， $BC = 4$ cm 和 $\angle ABC = 30^\circ$ ；求 $\triangle ABC$ 的面積。

5. In $\triangle PQR$, $r = 3$ cm, $q = 4$ cm and $Q = 65^\circ$. Find $\angle R$.
(Give the answer correct to the nearest 0.1° .)

圖中 $\triangle PQR$ ， $r = 3$ cm， $q = 4$ cm 和 $Q = 65^\circ$ 。求 $\angle R$ 。
(答案準確至 0.1°)



6. In the figure, ABCD is a quadrilateral with $AB = 3$ cm, $BC = 4$ cm, $CD = 2$ cm, $DA = 6$ cm and $\angle BAD = 35^\circ$. Find



圖中 ABCD 為四邊形， $AB = 3$ cm， $BC = 4$ cm， $CD = 2$ cm， $DA = 6$ cm 和 $\angle BAD = 35^\circ$ 。求

- (a) the length of BD,

BD 的長度，

- (b) $\angle BCD$,

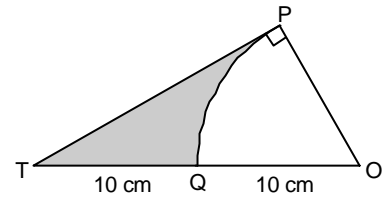
- (c) the area of ABCD.

ABCD 的面積。

(Give the answers correct to 2 decimal places.)

(答案準確至兩位小數)

7. In the figure, OTP is a right-angled triangle with $\angle OPT = 90^\circ$. OPQ is a sector with centre O. If $OQ = QT = 10$ cm, find



圖中，OTP 為一直角三角形， $\angle OPT = 90^\circ$ 。OPQ 為一扇形而 O 為圓心，求

- (a) $\angle POT$,

- (b) the area of $\triangle OTP$,

$\triangle OTP$ 面積，

- (c) the area of the shaded region.

陰影部分面積

(Give the answers correct to 3 significant figures if necessary.)

(若有需要答案準確至三個有效數字)

END OF TEST

試卷完