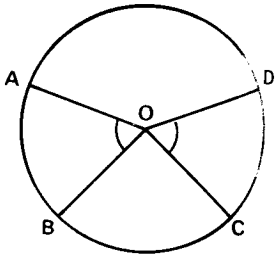
圓形的定理測驗

請細閱以下圖形，並將適當的圓形的定理填寫在第 2 頁的表格內。　　時限:15 分鐘

Created by Mr. Francis Hung on 20081112

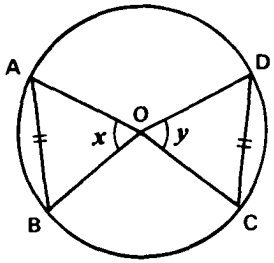
Last updated: September 22, 2021

1.



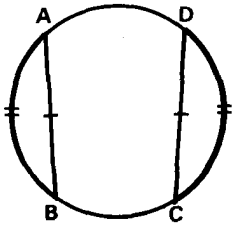
∠AOB=∠COD, 則 $\overset{\frown}{AB} = \overset{\frown}{CD}$

2



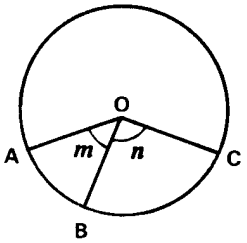
AB=CD, 則 $x = y$

3.



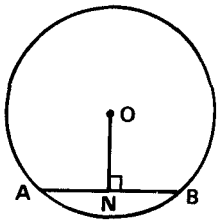
$\overset{\frown}{AB} = \overset{\frown}{CD}$, 則 AB=CD

4



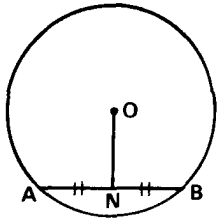
$\overset{\frown}{AB} : \overset{\frown}{BC} = m : n$

5.



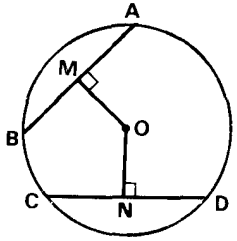
若　ON ⊥ AB,
則　AN = NB。

6.



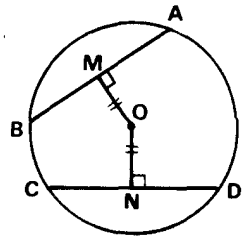
若　AN = NB,
則　ON ⊥ AB。

7.



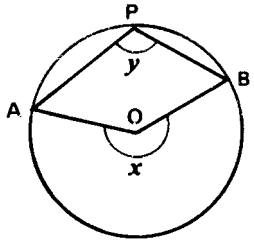
若　AB = CD,
則　OM = ON。

8.



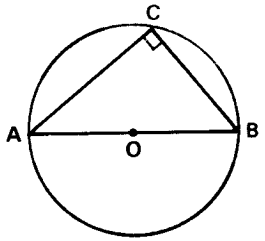
若　OM = ON,
則　AB = CD。

9.

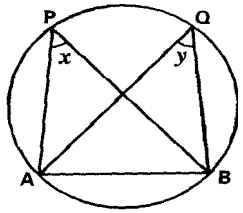


$x = 2y$

10

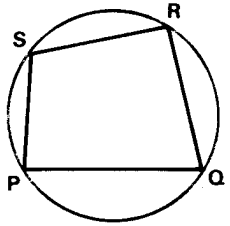


11



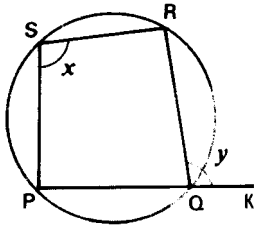
$x = y$

12



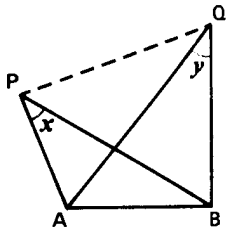
∠P + ∠R = 180°,
∠Q + ∠S = 180°。

13



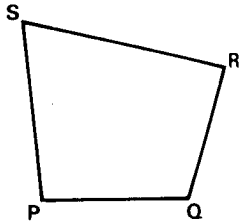
$y = x$

14



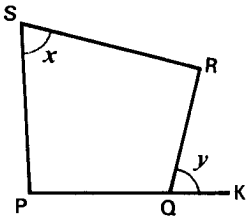
若　$x = y$,
則　A、B、Q 和 P 共圓。

15.



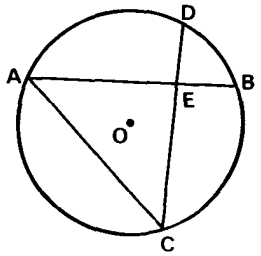
若　∠P + ∠R = 180°
或　∠Q + ∠S = 180°,
則 P、Q、R 和 S 共圓。

16.



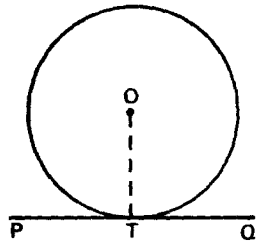
若　$y = x$,
則　P、Q、R 和 S 共圓。

17.



$AE \cdot EB = CE \cdot ED$

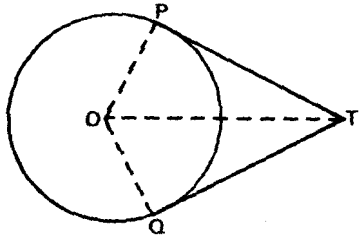
18



切線 $PQ \perp OT$

19. 若 $PQ \perp OT$，
則 PQ 是圓在 T 點的切綫。

20



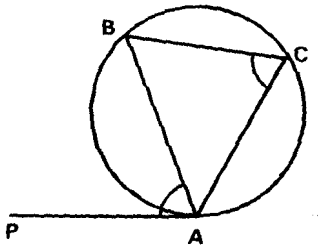
對於一個圓心是 O 的圓，若從一個外點 T 向圓作兩條切綫 TP 及 TQ，則

(i) $TP = TQ$

(ii) $\angle POT = \angle QOT$

(iii) $\angle PTO = \angle QTO$

21



若 PQ 切圓於 A 點，而 AB 是該圓的一任意弦，
則 $\angle BAP = \angle BCA$。

22 $\angle BAP = \angle BCA$，則 PA 是圓在 A 點的切綫。

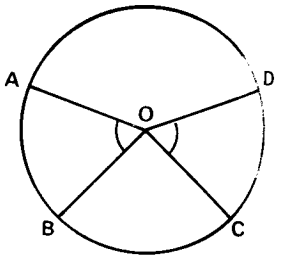
班別:_____ 姓名:_____ 學號：_____

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.
13.	14.	15.
16.	17.	18.
19.	20.	21.
22.		總分

試卷完

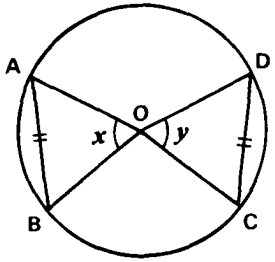
Circle theorem test Time allowed: 15 minutes In each of the following figure, write down the abbreviation in the boxes on next page.

1.



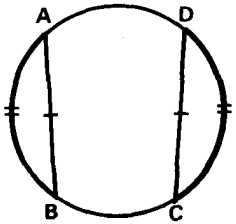
If ∠AOB=∠COD, then $\overset{\frown}{AB} = \overset{\frown}{CD}$

2



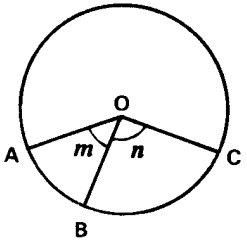
If AB=CD, then $x = y$

3.



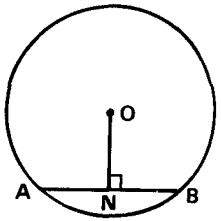
If $\overset{\frown}{AB} = \overset{\frown}{CD}$, then AB=CD

4



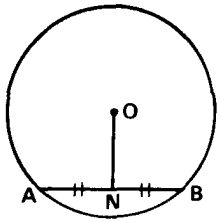
$\overset{\frown}{AB} : \overset{\frown}{BC} = m : n$

5.



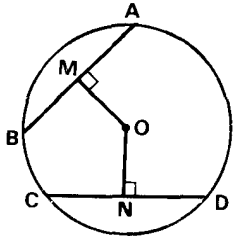
If ON ⊥ AB then AN = NB

6.



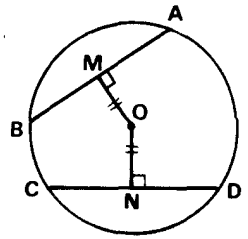
If AN = NB then ON ⊥ AB

7.



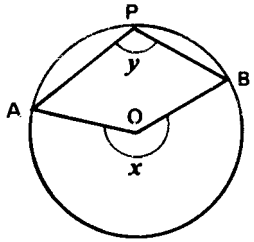
If AB = CD then OM = ON

8.



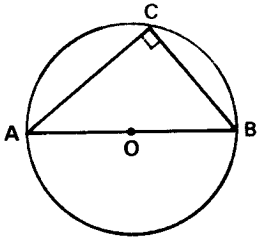
If OM = ON, then AB = CD

9.



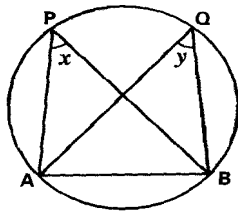
$x = 2y$

10



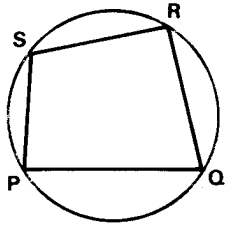
$\angle ACB = 90°$

11



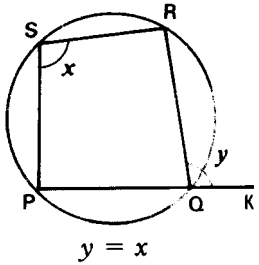
$x = y$

12



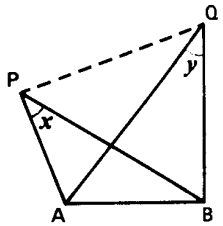
∠P + ∠R = 180°,
∠Q + ∠S = 180°。

13



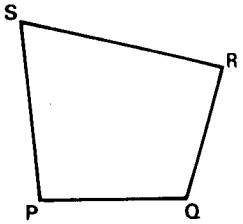
$y = x$

14



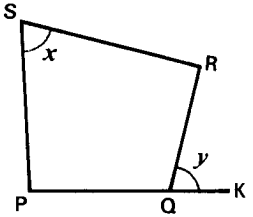
If $x = y$, then A, B, Q, P are concyclic.

15.



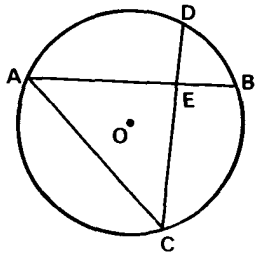
If $\angle P + \angle R = 180°$ or $\angle Q + \angle S = 180°$, then P, Q, R, S are concyclic.

16.



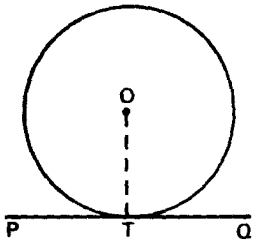
If $y = x$, then P , Q, R, S are concyclic.

17.



Intersection chords theorem

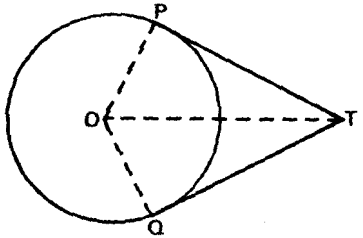
18



Tangent ⊥ radius

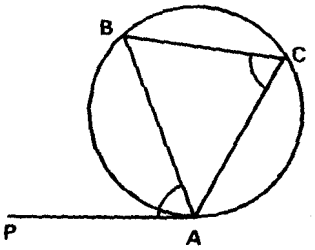
19. Converse tangent ⊥ radius

20



Tangent from ext. point

21



∠ in alt. seg.

22. Converse, ∠ in alt. seg.

Class: S._____ Name:_____ No：_____

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.
13.	14.	15.
16.	17.	18.
19.	20.	21.
22.		Total

1. eq. ∠s eq. arcs	2. eq. chords eq. ∠s	3. eq. arcs eq. chords

End of Paper

4. arcs $\propto$ $\angle$s	5. $\perp$ from centre bisects chord	6. line joining centre and mid-point of chord $\perp$ chord
7. eq. chords are eq. dist. from centre	8. chords eq. dist. from centre are eq.	9. $\angle$ at centre twice $\angle$ at $\odot^{ce}$
10. $\angle$ in semi-circle	11. $\angle$s in the same seg.	12. opp. $\angle$s cyclic quadrilateral
13. ext. $\angle$, cyclic quad.	14. converse, $\angle$s in the same seg.	15. opp. $\angle$s supp.
16. ext. $\angle$ = int. opp. $\angle$	17. AE $\times$ EB = CE $\times$ ED	18. If PQ is a tangent at T and O is the centre, then OT $\perp$ PQ
19. If OT $\perp$ PQ, and O is the centre, then PTQ is a tangent at T	20. If T is an external point and O is the centre, two tangents TP and TQ can be drawn. TP = TQ, $\angle$PTO = $\angle$QTO, $\angle$POT = $\angle$QOT	21. If PA is a tangent at A, then $\angle$PAB = $\angle$ACB
22. If $\angle$PAB = $\angle$ACB, then PA is the tangent at A.		