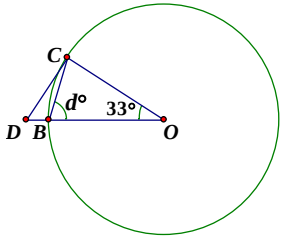
1982 FI3.4

圖中，O 為圓心，B 和 C 為圓周上的點，使得 $\angle BOC = 33°$, $\angle OBC = d°$。求 d 的值。

In the figure, O is the centre, B and C are points on the circumference. $\angle BOC = 33°$, $\angle OBC = d°$.

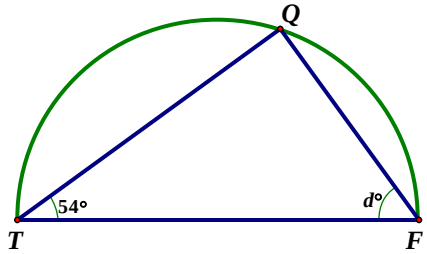
Find the value of d .



1982 FI5.4

TQF 為一半圓形，求 d 的值。

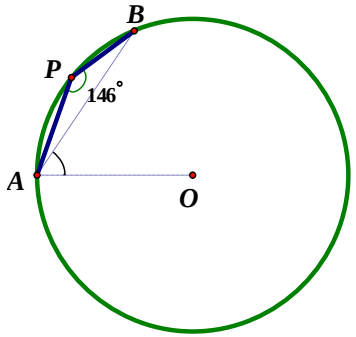
TQF is a semi-circle. Find the value of d.



1983 FG10.3

A、P 及 B 三點均在圓周上，圓心為 O。若 $\angle APB = 146°$，求 $\angle OAB$ 的值。

A, P, B are three points on a circle with centre O. If $\angle APB = 146°$, find the value of $\angle OAB$.

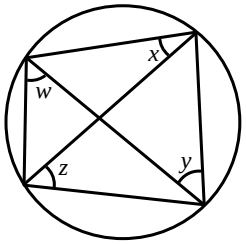


1986 FI5.2

如圖所示，$x = 36°$，$y = 44°$，$z = 52°$及 $w = b°$。求 b 的值。

In the figure, $x = 36°$, $y = 44°$, $z = 52°$ and $w = b°$.

Find the value of b .

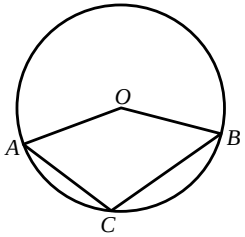


1987 FSI.4

附圖中，O 為圓心。若 $\angle ACB = 120°$ 及 $\angle AOB = d°$，求 d 的值。

In the figure, O is the centre of the circle.

If $\angle ACB = 120°$ and $\angle AOB = d°$, find the value of d .



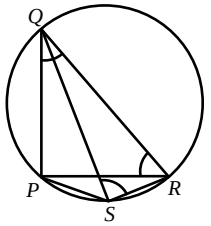
1987 FI1.3

附圖中，$\angle PQR = 70°$，$\angle PRQ = 50°$。

若 $\angle QSR = n°$，求 n 的值。

In the given figure, $\angle PQR = 70°$, $\angle PRQ = 50°$.

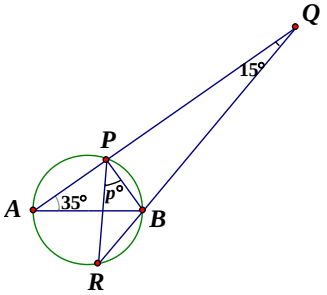
If $\angle QSR = n°$, find the value of n .



1987 FI2.4

附圖中，AB 為該圓之直徑。APQ 及 RBQ 為直線。若 $\angle PAB = 35°$，$\angle PQB = 15°$ 及 $\angle RPB = p°$，求 p 的值。

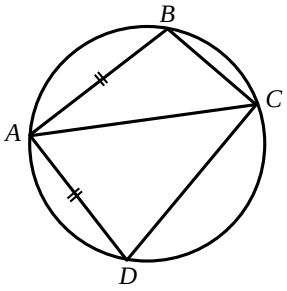
In the figure, AB is a diameter of the circle. APQ and RBQ are straight lines. If $\angle PAB = 35°$, $\angle PQB = 15°$ and $\angle RPB = p°$, find the value of p .



1988 FI5.3

附圖中，$AB = AD$，$\angle BAC = 28°$，$\angle BCD = 106°$。若 $\angle ABC = x°$，求 x 的值。

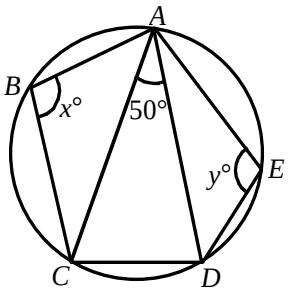
In the figure, $AB = AD$, $\angle BAC = 28°$, $\angle BCD = 106°$. If $\angle ABC = x°$, find the value of x .



1989 HI19

在圖中，$ABCD$ 及 $ACDE$ 是圓內接四邊形，求 $x + y$ 的值。

In the figure, $ABCD$ and $ACDE$ are cyclic quadrilaterals. Find the value of $x + y$.

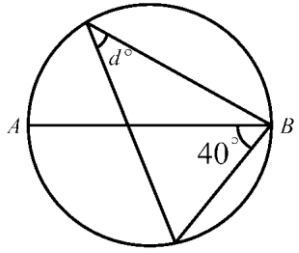


1991 FI3.4

在圖中，AB 是該圓形的直徑。求 d 的值。

In the figure, AB is a diameter of the circle.

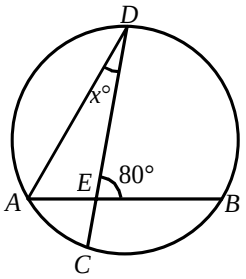
Find the value of d .



1992 HI10

在圖中，弧 *BD* 的長度是弧 *AC* 的 4 倍，$\angle DEB = 80°$及$\angle ADC = x°$，求 x 的值。

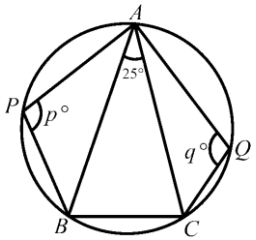
In the figure, arc *BD* is 4 times the arc *AC*, $\angle DEB = 80°$ and $\angle ADC = x°$, find the value of x .



1992 FI1.3

如圖所示，若 $z = p + q$，求 z 的值。

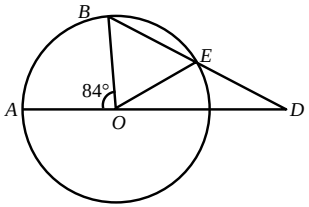
In the figure, if $z = p + q$, find the value of z .



1994 HI10

如圖，*O* 為圓心、*OE* = *DE* 及$\angle AOB = 84°$。若 $\angle ADE = a°$，求 a 的值。

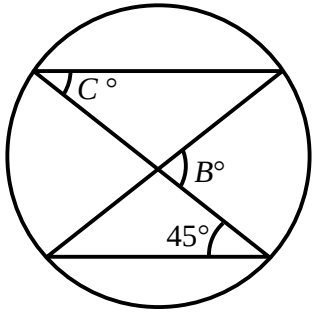
In the figure, *O* is the centre of the circle, *OE* = *DE* and $\angle AOB = 84°$.
Find the value of a if $\angle ADE = a°$.



1994 FI2.3

如圖，$B = 60$，求 C 的值。

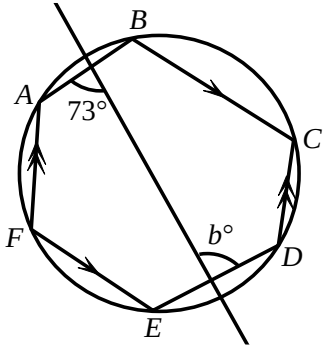
Refer to the diagram, $B = 60$, find the value of C .



1998 FSG.2

右圖中，*FA*//*DC* 及 *FE*//*BC*。求 b 的值。

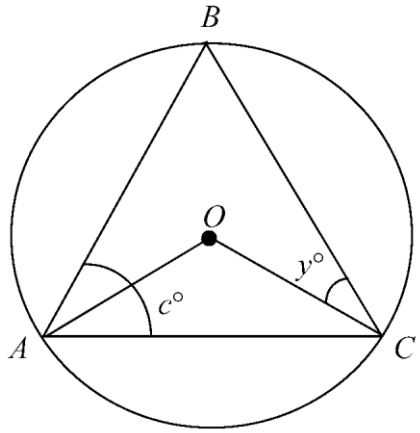
In the diagram, *FA*//*DC* and *FE*//*BC* .
Find the value of b .



2000 FG4.3

在圖中，*O* 為圓心，$c° = 2y°$，求 c 的值。

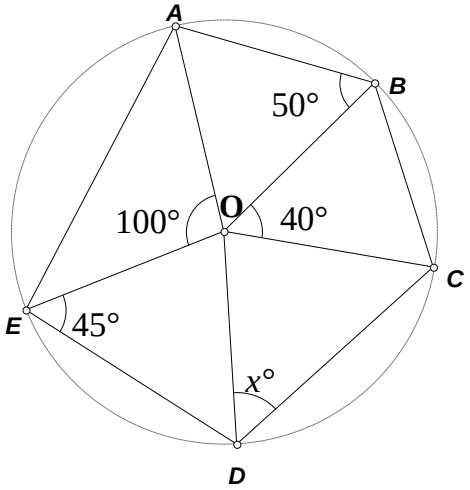
In the figure, *O* is the centre of the circle and $c° = 2y°$. Find the value of c .



2002 HG6

如圖，點 *A*、*B*、*C*、*D*、*E* 位於以 *O* 為圓心的一個圓上。已知 $\angle DEO = 45°$，$\angle AOE = 100°$，$\angle ABO = 50°$，$\angle BOC = 40°$及 $\angle ODC = x°$，求 x 的值。

In the figure, points *A*, *B*, *C*, *D*, *E* are on a circle with centre at *O* .
Given $\angle DEO = 45°$, $\angle AOE = 100°$, $\angle ABO = 50°$, $\angle BOC = 40°$, and $\angle ODC = x°$, find the value of x .



2002 FI1.4

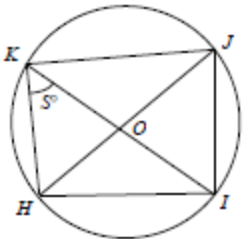
在右圖中，*O* 為圓心，*HJ* 和 *IK* 為圓的直徑以及$\angle HKI = S°$。

已知 $\angle HKI + \angle HOI + \angle HJI = \frac{1}{4} \times 648°$，求 S 的值。

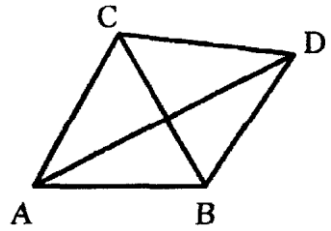
In the following figure, *O* is the centre of the circle, *HJ* and *IK* are diameters and $\angle HKI = S°$.

Given that $\angle HKI + \angle HOI + \angle HJI = \frac{1}{4} \times 648°$,

find the value of S .



2003 HG8



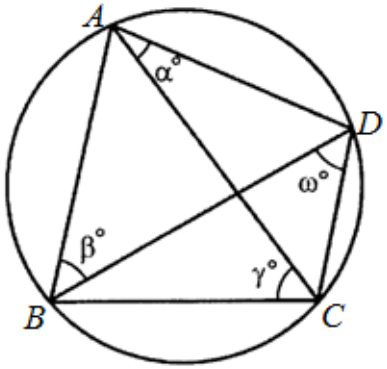
在圖中，$AC = BC = CD$，$\angle ACB = 80°$。

若 $\angle ADB = x°$，求 x 的值。

In the figure, $AC = BC = CD$, $\angle ACB = 80°$.

If $\angle ADB = x°$, find the value of x.

2009 FI2.4

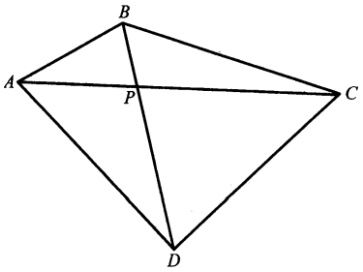


如圖，$\alpha = 36$, $\beta = 43$, $\gamma = 59$ 及 $\omega = d$，

求 d 的值。

In the figure, $\alpha = 36$, $\beta = 43$, $\gamma = 59$ and $\omega = d$, find the value of d.

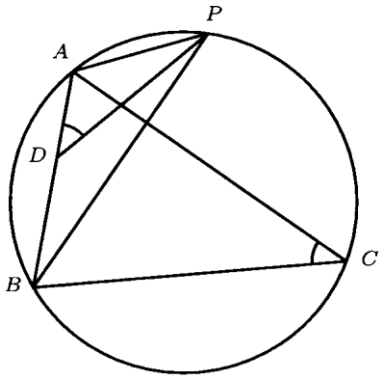
2011 HG9



如圖，$ABCD$ 為一凸四邊形，$\angle BAC = 27°$，$\angle BCA = 18°$，$\angle BDC = 54°$，$\angle BDA = 36°$，且四邊形的對角線 AC、BD 相交於 P。求$\angle CPB$ 的值。

As shown in the figure, $ABCD$ is a convex quadrilateral, $\angle BAC = 27°$, $\angle BCA = 18°$, $\angle BDC = 54°$, $\angle BDA = 36°$. The diagonals AC and BD intersect at P. Find the value of $\angle CPB$.

2011 FI3.4

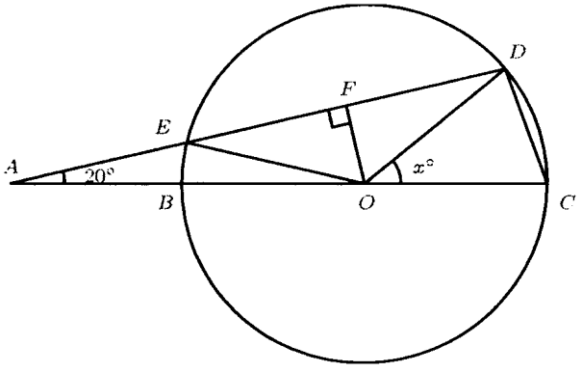


在圖中，AP、AB、PB、PD、AC 及 BC 為綫段及 D 為 AB 上的一點。若 AB 的長度為 AD 的長度的 R 倍，$\angle ADP = \angle ACB$ 及 $S = \dfrac{PB}{PD}$，

求 S 的值。

In the figure, AP, AB, PB, PD, AC and BC are line segments and D is a point on AB. If the length of AB is 5 times that of AD, $\angle ADP = \angle ACB$ and $S = \dfrac{PB}{PD}$, find the value of S.

2011 FG2.3



在圖中的圓，其圓心為 O 及半徑為 r，三角形 ACD 與圓相交於 B、C、D 及 E 點。綫段 AE 的長度與圓的半徑相同。

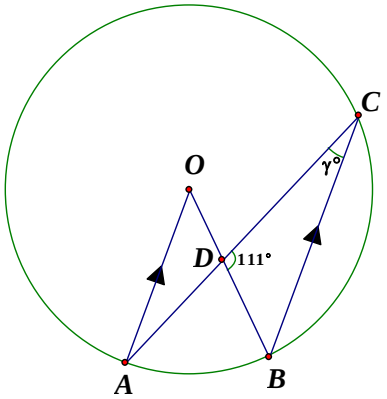
若 $\angle DAC = 20°$及 $\angle DOC = x°$，

求 x 的值。

In the figure, there is a circle with centre O and radius r. Triangle ACD intersects the circle at B, C, D and E. Line segment AE has the same length as the radius.

If $\angle DAC = 20°$ and $\angle DOC = x°$, find the value of x.

2012 FI3.3

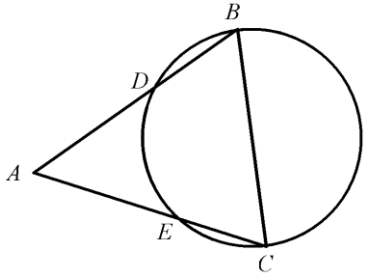


在圖中，有一個圓心在 O 的圓，其圓周上有點 A、B 及 C，四條綫段：OA、OB、AC 與 BC，且 OA 與 BC 平行。

若 D 是 OB 及 AC 之交點且 $\angle BDC = 111°$ 及 $\angle ACB = \gamma°$，求 γ 的值。

In the figure, a circle at centre O has three points on its circumference, A, B and C. There are line segments OA, OB, AC and BC, where OA is parallel to BC. If D is the intersection of OB and AC with $\angle BDC = 111°$ and $\angle ACB = \gamma°$, find the value of γ.

2013 HI7

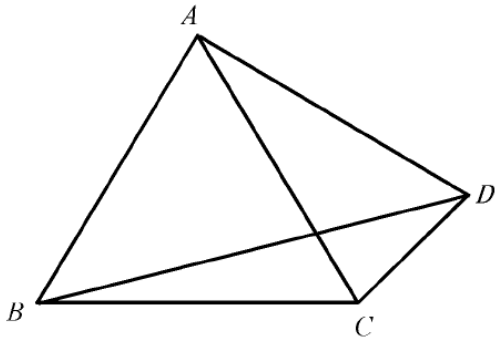


圖二所示為一通過 B 點及 C 點的圓，而 A 點則在圓之外。已知 BC 是圓的直徑，AB 及 AC 分別與圓相交於 D 點及 E 點，且$\angle BAC = 45°$，

求 $\dfrac{\Delta ADE \text{的面積}}{BCED\text{的面積}}$。

The figure shows a circle passes through two points B and C, and a point A is lying outside the circle. Given that BC is a diameter of the circle, AB and AC intersect the circle at D and E respectively and $\angle BAC = 45°$, find $\dfrac{\text{area of } \Delta ADE}{\text{area of } BCED}$.

2014 FG2.4



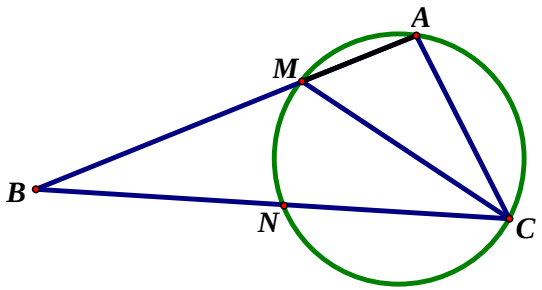
在圖中，D 以直綫連接著等邊三角形 ABC 的頂點，當中 $AB = AD$。

設 $\angle BDC = \alpha°$，求 α 的值。

In the figure, vertices of equilateral triangle ABC are connected to D in straight line segments with $AB = AD$.

If $\angle BDC = \alpha°$, determine the value of α.

2017 HI10



如圖，CM 是$\angle ACB$ 的角平分綫，$AB = 2AC$。已知 ΔAMC 的外接圓與 BC 相交於 N。

若 $BN = 10$，求 AM 的長度。

In the figure, CM is the angle bisector of $\angle ACB$ and $AB = 2AC$.

Given that the circumscribed circle of ΔAMC intersects BC at N. If $BN = 10$, find the length of AM.

Answers

1982 FI3.4 73.5	1982 FI5.4 36	1983 FG10.3 56°	1986 FI5.2 48	1987 FSI.4 120
1987 FI1.3 60	1987 FI2.4 40	1988 FI5.3 99	1989 HI19 230	1991 FI3.4 50
1992 HI10 16	1992 FI1.3 205	1994 HI10 28	1994 FI2.3 15	1998 FSG.2 73
2000 FG4.3 60	2002 HG6 65	2002 FI1.4 40.5	2003 HG8 40	2009 FI2.4 42
2011 HG9 99°	2011 FI3.4 $\sqrt{5}$	2011 FG2.3 60	2012 FI3.3 23	2013 HI7 1
2014 FG2.4 30	2017 HI10 5			