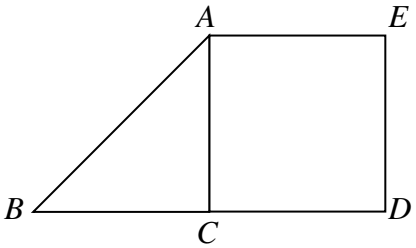
1983 FG7.2



圖中，$ACDE$ 為一正方形，$AC = BC$ 及 $\angle ACB = 90°$。若 $ACDE$ 的面積為 10 cm^2，求 ΔABC 的面積。

In the figure shown, $ACDE$ is a square and $AC = BC$, $\angle ACB = 90°$. Find the area of ΔABC if the area of $ACDE$ is 10 cm^2.

1984 FG10.1

一正方形內接於一直徑為 10 之圓。若 A 為正方形的面積，求 A 的值。

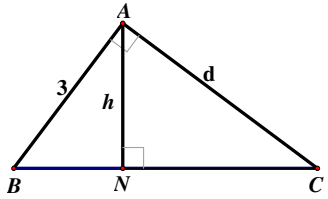
If A is the area of a square inscribed in a circle of diameter 10, find the value of A .

1985 FSG.4

一正方形內接於一個半徑為 10 之圓。若正方形之面積為 A，求 A 的值。

If A is the area of a square inscribed in a circle of radius 10, find the value of A .

1985 FG6.4



如附圖所示，$BA \perp AC$ 及 $AN \perp BC$。

若 $AB = 3$，$AC = d = 4$，$AN = h$，求 h 的值。

In the figure, $BA \perp AC$ and $AN \perp BC$.

If $AB = 3$, $AC = d = 4$, $AN = h$, find the value of h.

1985 FG9.1

ΔLMN 之三邊長分別為 8、15 及 17。若 ΔLMN 之面積為 A，求 A 的值。

The lengths of the 3 sides of ΔLMN are 8, 15 and 17 respectively.

If the area of ΔLMN is A , find the value of A .

1989 FI3.3

一正方形內接一個直徑為 16 的圓。設正方形的面積為 A，求 A 的值。

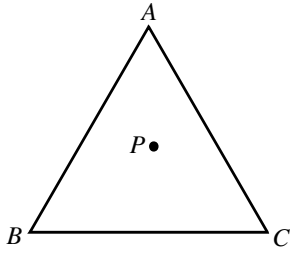
If A is the area of a square inscribed in a circle of diameter 16, find the value of A .

1991 FSG.1

一等邊三角形的高是 $8\sqrt{3}$ cm，面積是 $a\sqrt{3}$ cm^2。求 a 的值。

The height of an equilateral triangle is $8\sqrt{3}$ cm and the area of the triangle is $a\sqrt{3}$ cm^2. Find the value of a .

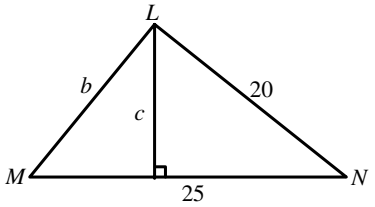
1992 HG8



ABC 為一邊長 $\sqrt{12}$ cm 的等邊三角形，而 P 為此三角形內的任意一點(如圖所示)。若 P 至三邊 AB、BC 及 CA 的垂直距離的總和為 x cm，求 x 的值。

ABC is an equilateral triangle of side $\sqrt{12}$ cm, and P is any point inside the triangle (as shown in the figure). If the sum of the perpendicular distances from P to the three sides AB, BC and CA is x cm, find the value of x .

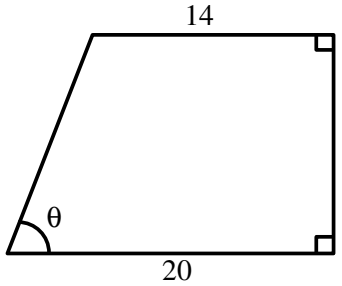
1992 FI5.3



圖中，$b = 15$，求 c 的值。

In the figure, $b = 15$, find the value of c .

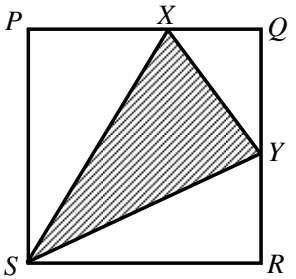
1993 FI2.1



若 $\sin\theta = \frac{4}{5}$ ，求四邊形面積 a。

If $\sin\theta = \frac{4}{5}$, find a, the area of the quadrilateral.

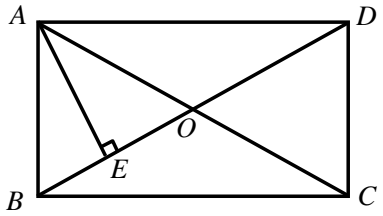
1994 FI2.1



在正方形 $PQRS$ 中，Y 為 QR 之中點，且 $PX = \frac{3}{4}PQ$。若 A 為陰影部分三角形面積與正方形面積的比，求 A 的值。

In square $PQRS$, Y is the mid-point of the side QR and $PX = \frac{3}{4}PQ$. If A is the ratio of the area of the shaded triangle to the area of the square, find the value of A .

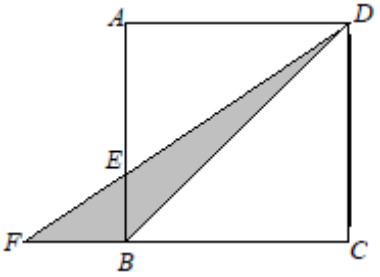
1995 FI5.4



如圖，*ABCD* 為一長方形。*AE* ⊥ *BD* 且 *BE* = *EO* = 2。求長方形 *ABCD* 之面積 *d*。

Refer to the figure, *ABCD* is a rectangle.
AE ⊥ *BD* and *BE* = *EO* = 2.
Find *d*, the area of the rectangle *ABCD* .

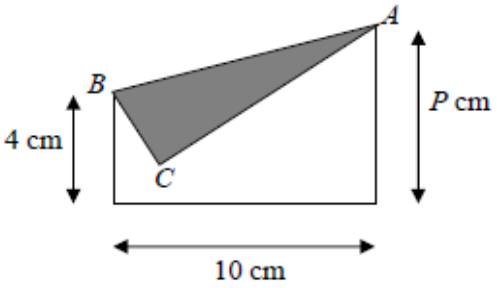
2002 FI1.1



在右圖中，*ABCD* 是一邊長為 10 cm 的正方形，*AEB*、*FED* 及 *FBC* 為直綫，Δ*AED* 的面積比Δ*FEB* 的面積大 10 cm^2。若Δ*DFB* 的面積為 *P* cm^2，求 *P* 的值。

In the following figure, *ABCD* is a square of length 10 cm. *AEB*, *FED* and *FBC* are straight lines. The area of Δ*AED* is larger than that of Δ*FEB* by 10 cm^2. If the area of Δ*DFB* is *P* cm^2, find the value of *P* .

2002 FI3.1

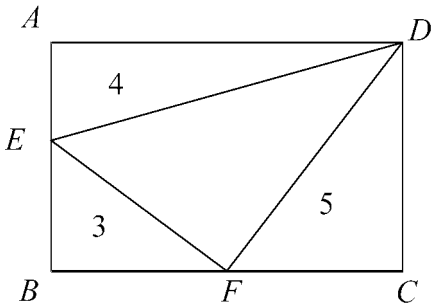


將一長方形紙摺出以下的圖形。

若 △*ABC* 的面積是原長方形紙面積的 $\frac{1}{3}$，求 *P* 的值。

A rectangular piece of paper is folded into the following figure. If the area of △*ABC* is $\frac{1}{3}$ of the area of the original rectangular piece of paper, find the value of *P* .

2002 FI4.2



在下圖中，*ABCD* 為一長方形。*E* 和 *F* 分別是 *AB* 和 *BC* 上的點。三角形 *AED*、*EBF* 和 *FCD* 的面積分別為 *P*、3 和 5。

若Δ*EFD* 的面積為 *Q*，求 *Q* 的值。

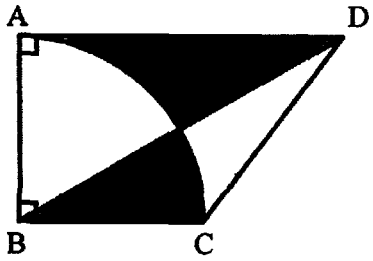
In the following figure, *ABCD* is a rectangle. *E* and *F* are points on *AB* and *BC* respectively. The areas of triangles *AED*, *EBF* and *FCD* are 4, 3 and 5 respectively.
If the area of Δ*EFD* is *Q*, find the value of *Q* .

2002 FG2.1

已知三角形三邊的長分別為 6、8 和 10。若這三角形的面積為 *a*，求 *a* 的值。

It is given that the lengths of the sides of a triangle are 6, 8, and 10 .
If the area of the triangle is *a*, find the value of *a* .

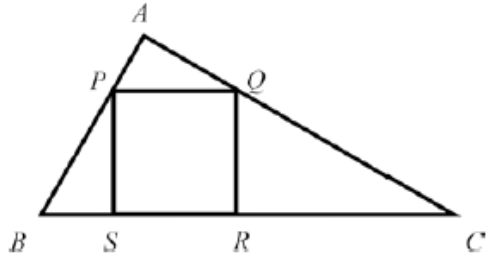
2003 HG9



圖中，扇形 *ABC* 為半徑是 4 cm 的圓的四分之一，且兩個陰影部分的面積相等。設梯形 *ABCD* 的面積為 *A* cm^2，求 *A* 的值。(取 π = 3.14)

In the figure, the sector *ABC* is one quarter of a circle with radius 4 cm. Suppose the areas of the two shaded parts are equal. Let the area of the trapezium *ABCD* be *A* cm^2, find the area of *A* . (Take π = 3.14)

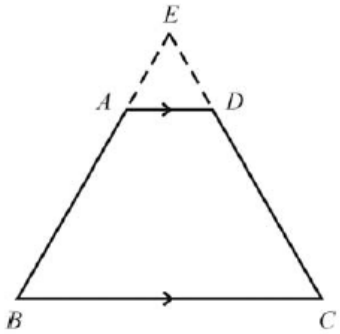
2003 FG2.3



如圖，正方形 *PQRS* 內接於 Δ*ABC*。Δ*APQ*、Δ*PBS* 和Δ*QRC* 的面積分別為 4、4 和 12。若正方形 *PQRS* 的面積為 *c*，求 *c* 的值。

In the figure, the square *PQRS* is inscribed in Δ*ABC*. The areas of Δ*APQ*, Δ*PBS* and Δ*QRC* are 4, 4 and 12 respectively. If the area of the square is *c*, find the value of *c* .

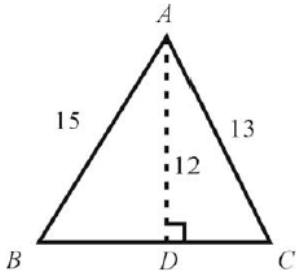
2004 FI2.4



如圖，*EBC* 是一等邊三角形，*A* 和 *D* 分別在 *EB* 和 *EC* 上。已知 *AD* //*BC*，*AB* = *CD* = *R*，且 *AC* ⊥ *BD*。若梯形 *ABCD* 的面積是 *S*，求 *S* 的值。

In figure, *EBC* is an equilateral triangle, and *A*, *D* lie on *EB* and *EC* respectively. Given that *AD* // *BC*, *AB* = *CD* = *R* and *AC* ⊥ *BD*. If the area of the trapezium *ABCD* is *S*, find the value of *S* .

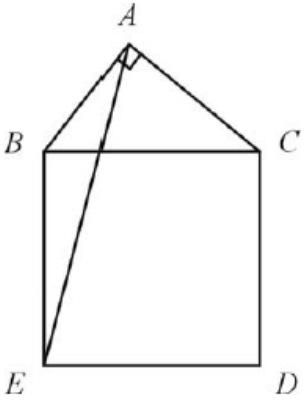
2004 FIS.1



如圖，ΔABC 為一銳角三角形，$AB = 15$，$AC = 13$，而高 $AD = 12$。若ΔABC 的面積為 P，求 P 的值。

In the figure, ΔABC is an acute triangle, $AB = 15$, $AC = 13$, and its altitude $AD = 12$. If the area of the ΔABC is P, find the value of P .

2004 FG2.2



如圖，ΔABC 是一直角三角形，$AB = 3$ cm，$AC = 4$ cm 及 $BC = 5$ cm。若 $BCDE$ 是一正方形且ΔABE 的面積是 b cm^2，求 b 的值。

In the figure, ΔABC is a right-angled triangle, $AB = 3$ cm, $AC = 4$ cm and $BC = 5$ cm. If $BCDE$ is a square and the area of ΔABE is b cm^2, find the value of b .

2005 HG2

已知正方形 $ABCD$ 的面積是 130 cm^2 及圓 O 經過點 A、B、C 及 D。若圓 O 的面積是 b cm^2，求 b 的值。(取 $\pi = 3.14$)

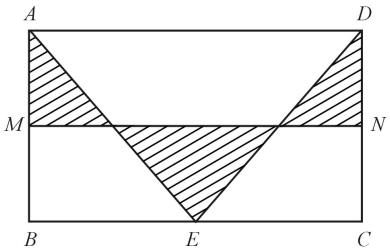
Given that the area of a square $ABCD$ is equal to 130 cm^2 and a circle O passes through the points A, B, C and D . If the area of the circle O is b cm^2 , find the value of b . (Take $\pi = 3.14$)

2005 HG9

已知在三角形 ABC 內的一點 O 到三角形三邊的垂綫的長度均為 2 cm，而ΔABC 的周界為 21 cm。若 ΔABC 的面積是 k cm^2，求 k 的值。

Given that the perpendicular distances from the point O to three sides of a triangle ABC are all equal to 2 cm and the perimeter of ΔABC is equal to 21 cm . If the area of ΔABC is equal to k cm^2 , find the value of k .

2005 FG2.1



如圖，在長方形 $ABCD$ 中，$AB = 6$ cm，$BC = 10$ cm。M 和 N 分別是 AB 和 DC 的中點。若陰影部分的面積是 a cm^2，求 a 的值。

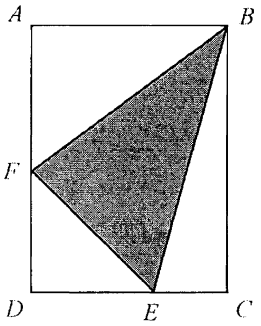
In the figure, $ABCD$ is a rectangle, $AB = 6$ cm and $BC = 10$ cm. M and N are the midpoints of AB and DC respectively. If the area of the shaded region is a cm^2, find the value of a .

2008 HI2

已知梯形 $PQRS$ 的邊長分別為 $PQ = 6$ cm、$QR = 15$ cm、$RS = 8$ cm 及 $SP = 25$ cm，並有 QR // PS。若 $PQRS$ 的面積為 Y cm^2，求 Y 的值。

Given that a trapezium $PQRS$ with dimensions $PQ = 6$ cm , $QR = 15$ cm , $RS = 8$ cm and $SP = 25$ cm , also QR // PS .
If the area of $PQRS$ is Y cm^2 , find the value of Y .

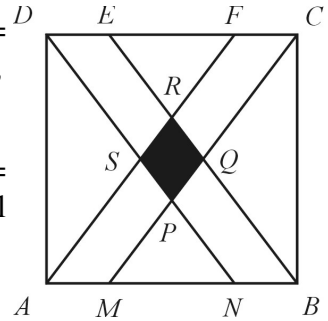
2009 HI10



如圖，$ABCD$ 是一矩形。E 及 F 分別在 CD 及 AD 上使得 $AF = 8$ cm 及 $EC = 5$ cm 。已知陰影部分的面積是 80 cm^2。設矩形 $ABCD$ 的面積為 g cm^2 ，求 g 的值。

In the figure, $ABCD$ is a rectangle. Points E and F lie on CD and AD respectively, such that $AF = 8$ cm and $EC = 5$ cm . Given that the area of the shaded region is 80 cm^2. Let the area of the rectangle $ABCD$ be g cm^2, find the value of g .

2009 HG6

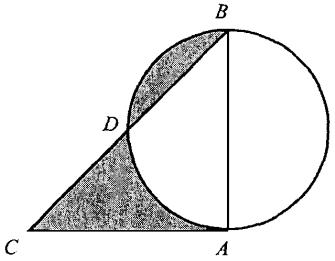


如圖，$ABCD$ 是一正方形且 $AM = NB = DE = FC = 1$ cm 及 $MN = 2$ cm。設四邊形 $PQRS$ 的面積為 c cm^2，求 c 的值。

In the figure, $ABCD$ is a square and $AM = NB = DE = FC = 1$ cm and $MN = 2$ cm. Let the area of quadrilateral $PQRS$ be c cm^2, find the value of c .

2009 FI4.2

如圖，ΔBAC是一直角三角形，$AB = AC = 3$ cm。已知直徑為AB的圓與BC相交於D且陰影部分的面積是 n cm^2，求 n 的值。



In the figure, ΔBAC is a right-angled triangle, $AB = AC = 3$ cm. Suppose that the circle with diameter AB intersects the line BC at D, and the total area of the shaded region is n cm^2. Find the value of n .

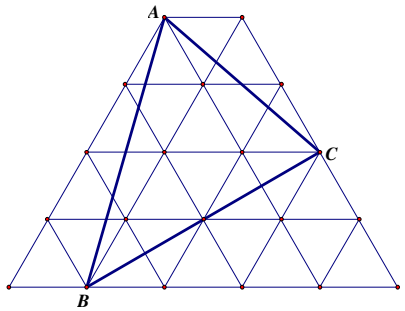
2015 HG2

已知等邊三角形 ABC 的邊長為 3，P 為三角形內的一點。設 PX、PY 及 PZ 分別為 P 至三角形三邊 AB、BC 及 CA 的垂足，求 $PX + PY + PZ$ 的值。

Given an equilateral triangle ABC with each side of length 3 and P is an interior point of the triangle. Let PX, PY and PZ be the feet of perpendiculars from P to AB, BC and CA respectively, find the value of $PX + PY + PZ$.

2015 FG3.4

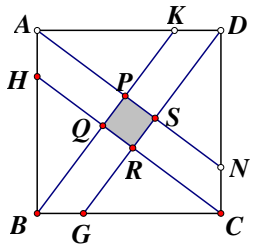
右圖中，每個小三角形的面積皆為1，求三角形ABC的面積的值。



In the figure below, the area of each small triangle is 1. Determine the value of the area of the triangle ABC .

2017 HG6

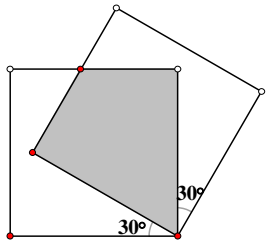
在圖中，正方形 $ABCD$ 的邊長為 20。已知 $DK : KA = AH : HB = 1 : 3$ 及 $BK // GD$，$HC // AN$，求陰影部分 $PQRS$ 的面積。



In the figure, square $ABCD$ has sides of length 20. Given that $DK : KA = AH : HB = 1 : 3$ and $BK // GD$, $HC // AN$, find the area of shaded region $PQRS$.

2018 HI8

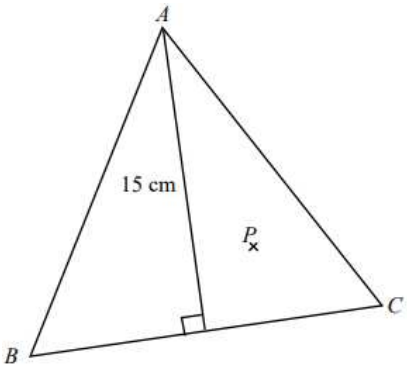
如圖所示，兩個邊長為 x cm 的正方形於一角重疊。若兩個正方形的非重疊部分與重疊部分面積的比是 $a : 1$，求 a 的值。



As shown in the figure, two squares with side x cm coincides at one corner. If the ratio of the non-overlapping area to the overlapping area of the two squares is a : 1, find the value of a .

2021 P1Q6

在圖中，等邊三角形 ABC 的高為 15 cm。P 為 ΔABC 內的一點。從 P 與 AB、BC 和 AC 的垂直距離分別為 h cm、4 cm 和 5 cm。求 h 的值。



In the figure, the altitude of an equilateral triangle ABC is 15 cm . P is a point inside ΔABC . The perpendicular distances from P to AB , BC and AC are h cm, 4 cm and 5 cm respectively. Find the value of h .

Answer

1983 FG7.2 5 cm^2	1984 FG10.1 50	1985 FSG.4 200	1985 FG6.4 $\frac{12}{5}$	1985 FG9.1 60
1989 FI3.3 128	1991 FSG.1 64	1992 HG8 3	1992 FI5.3 12	1993 FI2.1 136
1994 FI2.1 $\frac{5}{16}$	1995 FI5.4 $16\sqrt{3}$	2002 FI1.1 40	2002 FI3.1 12	2002 FI4.2 8
2002 FG2.1 24	2003 HG9 20.56	2003 FG2.3 16	2004 FI2.4 2352	2004 FIS.1 84
2004 FG2.2 $\frac{9}{2}$	2005 HG2 204.1	2005 HG9 21	2005 FG2.1 15	2008 HI2 96
2009 HI10 200	2009 HG6 $\frac{2}{3}$	2009 FI4.2 $\frac{9}{4}$	2015 HG2 $\frac{3\sqrt{3}}{2}$	2015 FG3.4 10
2017 HG6 16	2018 HI8 $2\left(\sqrt{3}-1\right)$	2021 P1Q6 6		