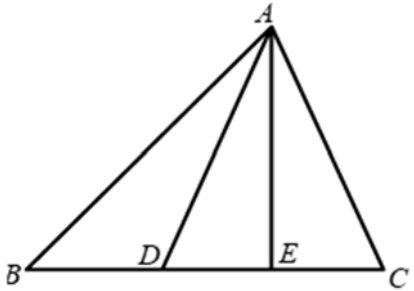
1985 FI4.3

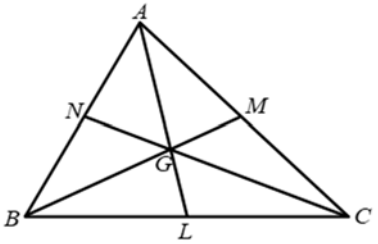


在圖中，$BD = 5$，$DE = 4$，$EC = 3$。若ΔAEC之面積為 24 及ΔABC之面積為 c，求 c 的值。

In the figure, $BD = 5$, $DE = 4$, $EC = 3$.

If the area of ΔAEC is 24 and the area of ΔABC is c , find the value of c .

1986 FG10.2



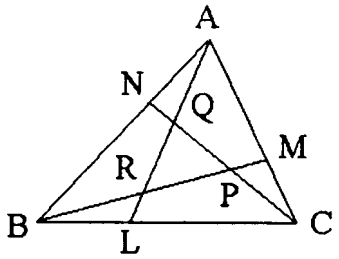
ΔABC 之中綫 AL、BM、CN 相交於 G。

若ΔABC 之面積為 54 cm^2，

ΔANG 之面積為 x cm^2，求 x 的值。

The medians AL, BM, CN of ΔABC meet at G. If the area of ΔABC is 54 cm^2 and the area of ΔANG is x cm^2. Find the value of x .

1992 HG7



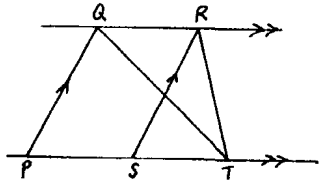
在圖中，$BL = \frac{1}{3}BC$、$CM = \frac{1}{3}CA$及$AN = \frac{1}{3}AB$。

若ΔPQR及ΔABC的面積分別為 6 cm^{2}及 x cm^2，求 x 的值。

In the figure, $BL = \frac{1}{3}BC$, $CM = \frac{1}{3}CA$ and $AN = \frac{1}{3}AB$.

If the areas of ΔPQR and ΔABC are 6 cm^2 and x cm^2 respectively, find the value of x .

1992 FI4.1



在圖中，$PQRS$ 之面積為 80 cm^2。

若 ΔQRT 之面積為 A cm^2，求 A 的值。

In the figure, the area of $PQRS$ is 80 cm^2.

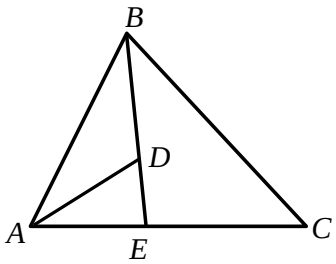
If the area of ΔQRT is A cm^2, find the value of A .

1993 HI10

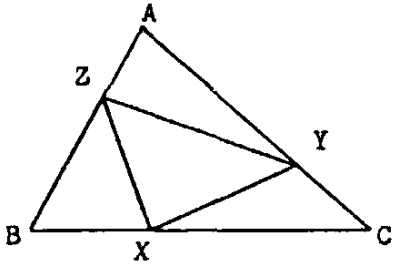
在圖中，BDE 及 AEC 為直綫、$AB = 2$、$BC = 3$、$\angle ABC = 60°$、$AE : EC = 1 : 2$。若 $BD : DE = 9 : 1$ 及三角形ΔDBA 的面積 $= \frac{a\sqrt{3}}{20}$，求 a 的值。

In the figure, BDE and AEC are straight lines, $AB = 2$, $BC = 3$, $\angle ABC = 60°$, $AE : EC = 1 : 2$.

If $BD : DE = 9 : 1$ and area of $\Delta DBA = \frac{a\sqrt{3}}{20}$, find the value of a .



1993 FG9.1-2



點 X、Y、Z 依次將 BC、CA、AB 分成 1 : 2。

設 ΔAZY 的面積: ΔABC 的面積 $= 2 : a$ 及 ΔAZY 的面積: ΔXYZ 的面積 $= 2 : b$。

求 a 及 b 的值。

BC, CA, AB are divided respectively by the points X, Y, Z in the ratio 1 : 2. Let

area of ΔAZY : area of $\Delta ABC = 2 : a$ and

area of ΔAZY : area of $\Delta XYZ = 2 : b$.

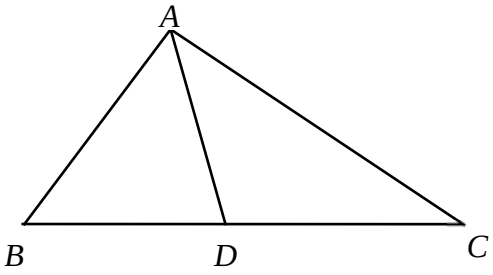
Find the value of a and b .

1997 FGS.1

E 是平行四邊形 $ABCD$ 其中一條邊 CD 的中點。若三角形 ADE 與平行四邊形 $ABCD$ 面積的比等於 1 : a，求 a 的值。

$ABCD$ is a parallelogram and E is the midpoint of CD. If the ratio of the area of the triangle ADE to the area of the parallelogram $ABCD$ is 1 : a , find the value of a .

1998 FI1.3

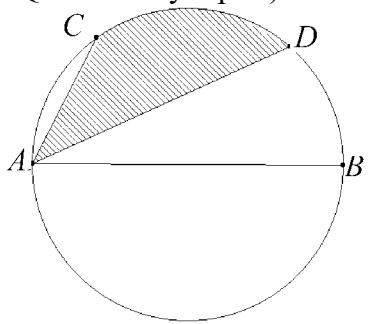


在圖中，$BD = 2$ cm，$DC = c$ cm，且ΔABD 的面積$= \frac{1}{3} \times \Delta ABC$ 的面積，求 c 的數值。

In the figure, $BD = 2$ cm, $DC = c$ cm and area of $\Delta ABD = \frac{1}{3} \times$area of ΔABC, find the value of c .

2000 FI4.2

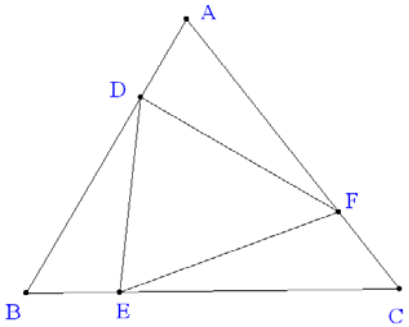
在下圖中，AB 為圓的直徑。C 和 D 把弧 AB 分為三等份。斜綫面積為 2。
若圓的面積為 Q，求 Q 的值。



In the following figure, AB is a diameter of the circle. C and D divide the arc AB into three equal parts. The shaded area is 2.
If the area of the circle is Q, find the value of Q .

2000 FI5.3

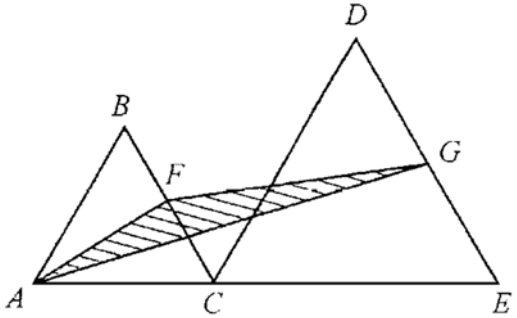
已知ΔABC 的面積為 3；D、E 和 F 分別為 AB、BC 和 CA 上的點使得 $AD=\frac{1}{3}AB$，$BE=\frac{1}{3}BC$，$CF=\frac{1}{3}CA$。
如果 ΔDEF 的面積為 R，求 R 的值。



Given that the area of the ΔABC is 3; D, E and F are the points on AB, BC and CA respectively such that $AD=\frac{1}{3}AB$, $BE=\frac{1}{3}BC$, $CF=\frac{1}{3}CA$. If the area of ΔDEF is R, find the value of R .

2004 HI9

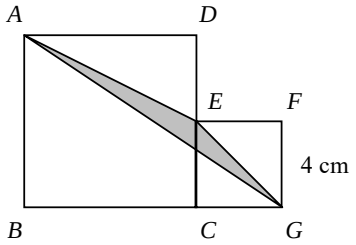
在圖中，C 在 AE 上，ΔABC 和 ΔCDE 是等邊三角形，且 F、G 分別是 BC 和 DE 的中點。若ΔABC 的面積是 24cm^2，ΔCDE 的面積是 60 cm^2，ΔAFG 的面積是 Q cm^2，求 Q 的值。



In the figure, C lies on AE, ΔABC and ΔCDE are equilateral triangles, F and G are the mid-points of BC and DE respectively. If the area of ΔABC is 24 cm^2, the area of ΔCDE is 60 cm^2, and the area of ΔAFG is Q cm^2, find the value of Q .

2005 HG7

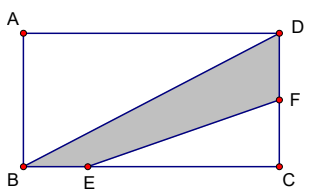
如圖，$ABCD$ 和 $CEFG$ 是兩個正方形，$FG=$ 4 cm。若ΔAEG 的面積是 g cm^2，求 g 的值。



In the figure, $ABCD$ and $CEFG$ are two squares and $FG = 4$ cm. If the area of ΔAEG is equal to g cm^2, find the value of g .

2006FG3.4

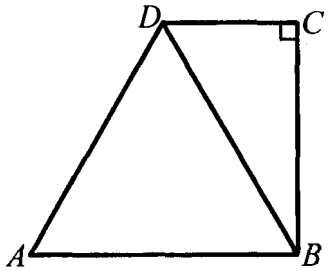
如圖，$ABCD$ 是一長方形，F 是 CD 的中點及 $BE:EC=1:3$。若長方形 $ABCD$ 的面積是 12 cm^2 及陰影部份 $BEFD$ 的面積是 R cm^2，求 R 的值。



In the figure, $ABCD$ is a rectangle, F is the midpoint of CD and $BE:EC = 1:3$. If the area of the rectangle $ABCD$ is 12 cm^2 and the area of $BEFD$ is R cm^2, find the value of R .

2011 HI10

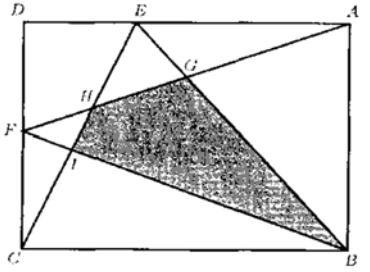
如圖，$ABCD$ 為個梯形，其中 $\angle C=90°$。若等邊三角形 ABD 的面積為$16\sqrt{3}$，求 梯形 $ABCD$ 的面積。



In the figure, $ABCD$ is a trapezium with $\angle C = 90°$.
If the area of the equilateral triangle ABD is $16\sqrt{3}$, find the area of trapezium $ABCD$.

2011 FG4.4

在圖中，$ABCD$ 為一長方形，及 E 及 F 分別為綫段 AD 及 DC 上的點。點 G 為綫段 AF 及 BE 的交點，點 H 為綫段 AF 及 CE 的交點，點 I 為綫段 BF 及 CE 的交點。若 AGE，$DEHF$ 及 CIF 的面積分別為 2、3 及 1，
求灰色部份 $BGHI$ 的面積。

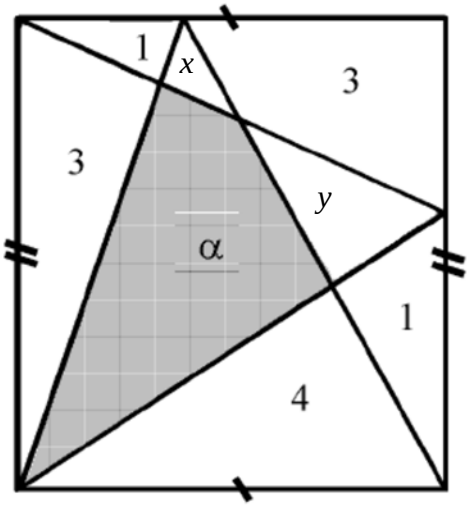


In the figure, $ABCD$ is a rectangle, and E and F are points on AD and DC, respectively. Also, G is the intersection of AF and BE, H is the intersection of AF and CE, and I is the intersection of BF and CE. If the areas of AGE, $DEHF$ and CIF are 2, 3 and 1, respectively, find the area of the grey region $BGHI$.

2014 FI1.1

求下圖中陰影部分的面積 α。

Determine the area of the shaded region, α, in the figure.

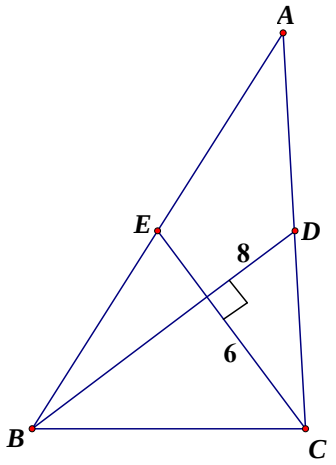


2016 HI10

如圖，在 ΔABC 中，BD 和 CE 分別是 AC 和 AB 兩邊上的中綫，且 $BD \perp CE$。已知 $BD = 8$，$CE = 6$，求 ΔABC 的面積。

As shown in the figure, BD and CE are the medians of the sides AC and AB of ΔABC respectively, and $BD \perp CE$.

Given that $BD = 8$, $CE = 6$, find the area of ΔABC.



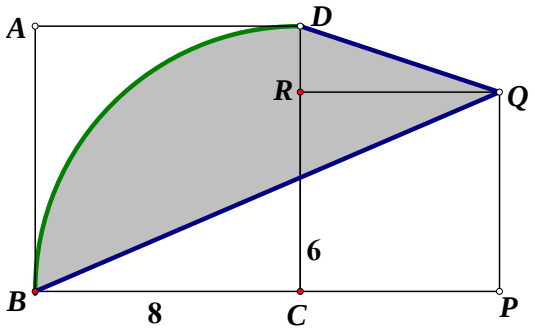
2016 HG7

設三角形三條中綫的長度為 9、12 及 15。求該三角形的面積。

The lengths of the three medians of a triangle are 9, 12 and 15. Find the area of the triangle.

2018 HI12

如圖所示，$ABCD$ 及 $PQRC$ 為兩個連接的正方形。以 C 為圓心及 CB 為半徑繪畫出弧 BD。已知 $BC = 8$ 及 $RC = 6$。求弧 BD 及綫段 DQ 與 BQ 所圍成的區域的面積。

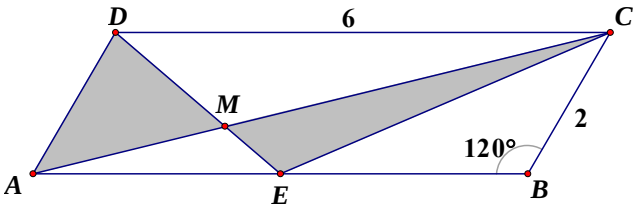


As shown in the figure, two squares $ABCD$ and $PQRC$ are joined together. An arc BD is drawn with centre C and radius CB.

Given that $BC = 8$ and $RC = 6$. Find the area of the region bounded by the arc BD, line segments DQ and BQ.

2018 FG3.1

AC 是平行四邊形 $ABCD$ 的對角綫，$CD = 6$，$BC = 2$ 及 $\angle ABC = 120°$。若 E 是 AB 的中點，AC 與 DE 相交於 M 及陰影部分的總面積是α，求 α 的值。

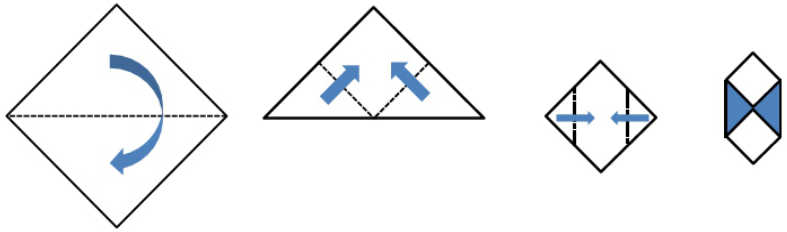


$ABCD$ is a parallelogram with diagonal AC, $CD = 6$, $BC = 2$, and $\angle ABC = 120°$. If E is the midpoint of AB, AC and DE intersect at M, and the total area of the shaded regions in α, determine the value of α.

2019 FI3.1

一張正方形紙的面積為 100 cm^2，按照圖中的虛綫和箭咀的方向對摺。若圖中的陰影部份為 s cm^2，求 s 的值。

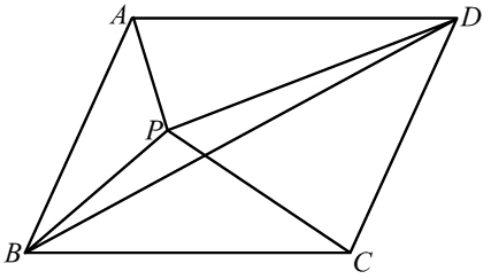
A piece of square paper of area 100 cm^2, is folded in half along the dotted line as shown below. If the area of the shaded region in the last figure is s cm^2, determine the value of s.



2019 FG3.2

下圖中，P 點在平行四邊形 $ABCD$ 內。若 ΔABP、ΔBPC 和 ΔBPD 的面積分別為 73 cm^2、100 cm^2 和 e cm^2，求 e 的值。

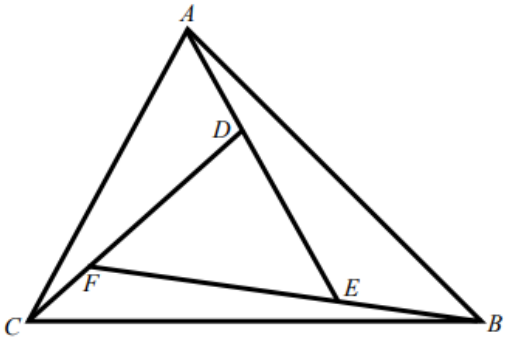
In the diagram below, point P is inside parallelogram $ABCD$. If areas of ΔABP, ΔBPC and ΔBPD are 73 cm^2, 100 cm^2 and e cm^2 respectively, determine the value of e.



2021 P1Q10

在圖三中，BEF、ADE 及 CFD 是直線，使得 $BE : EF = 1 : 2$，$AD : DE = 1 : 3$ 及 $CF : FD = 1 : 4$。若ΔDEF 的面積是 24 平方單位，求ΔABC 的面積。

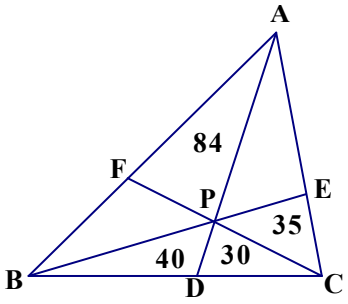
In Figure 3, BEF, ADE and CFD are straight lines such that $BE : EF = 1 : 2$, $AD : DE = 1 : 3$ and $CF : FD = 1 : 4$. If the area of ΔDEF is 24 square unit, find the area of ΔABC.



2023 HI10

在圖中，D、E 及 F 分別為 BC、AC 及 AB 上的點。AD、BE 及 CF 相交於 P 使得 ΔAPF 的面積 = 84、ΔBPD 的面積= 40、ΔCPD 的面積= 30 及 ΔCPE 的面積= 35。求ΔABC 的面積。

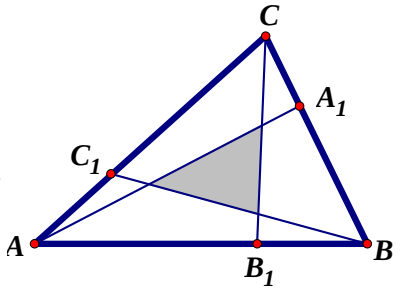
In the figure, D, E and F are points lying on BC, AB and AB respectively. AD, BE and CF intersect at P such that such that area of ΔAPF = 84, area of ΔBPD = 40, area of ΔCPD = 30 and area of ΔCPE = 35. Find the area of ΔABC.



2024 HG4

在圖三中，A_1、B_1 及 C_1 分別為 BC、AC 及 AB 上的點，使得 $AC_1 = 2C_1B$，$BA_1 = 2A_1C$ 及 $CB_1 = 2B_1A$。若ΔABC 的面積是 21 平方單位，求陰影部分的面積。

In Figure 3, A_1, B_1 and C_1 are points on BC, AC and AB respectively such that $AC_1 = 2C_1B$, $BA_1 = 2A_1C$ and $CB_1 = 2B_1A$. If the area of ΔABC is 21 square units, find the area of the shaded region.



圖三 Figure 3

Answer

1985 FI4.3 96	1986 FG10.2 9	1992 HG7 42	1992 FI4.1 40	1993 HI10 9
1993 FG9.1-2 $a = 9, b = 3$	1997 FGS.1 4	1998 FI1.3 4	2000 FI4.2 12	2000 FI5.3 1
2004 HI9 12	2005 HG7 8	2006FG3.4 $\frac{15}{4}$	2011 HI10 $24\sqrt{3}$	2011 FG4.4 6
2014 FI1.1 5	2016 HI10 32	2016 HG7 72	2018 HI12 16π	2018 FG3.1 $2\sqrt{3}$
2019 FI3.1 $\frac{25}{4}$	2019 FG3.2 27	2021 P1Q10 59	2023 HI10 315	2024 HG4 3