1984 FI4.1
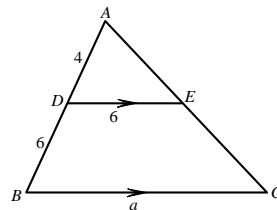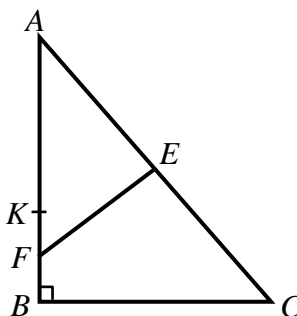
在圖中，$DE//BC$，若 $AD = 4$，$DB = 6$，$DE = 6$，
且 $BC = a$，求 a 的值。

In the figure, $DE // BC$. If $AD = 4$, $DB = 6$, $DE = 6$ and
$BC = a$, find the value of a.

1991 HI20

在圖中，$\angle ABC = 90°$、$AK = BC$ 及 E、F 分別為 AC、
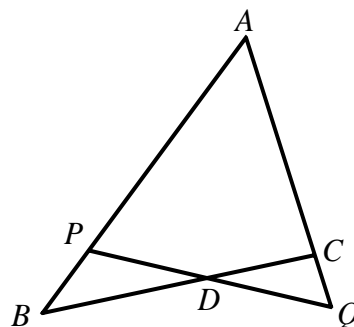KB 的中點。若 $\angle AFE = x°$，求 x 的值。

In the figure, $\angle ABC = 90°$, $AK = BC$ and E, F are the
mid-points of AC, KB respectively.
If $\angle AFE = x°$, find x .

1992 HG6

在圖中，$BD = DC$、$AP = AQ$。若 $AB = 13\text{ cm}$、
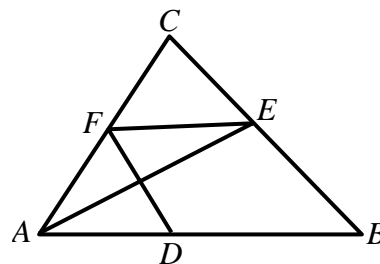$AC = 7\text{ cm}$ 及 $AP = x\text{ cm}$，求 x 的值。

In the figure, $BD = DC$, $AP = AQ$. If $AB = 13$ cm,
$AC = 7$ cm and $AP = x$ cm, find the value of x .

1993 HG3

在圖中，三角形 ABC 的面積為 10。D、E 及
F 分別為 AB、BC 及 CA 上的點且滿足 $AD :$
$DB = 2 : 3$，且 ΔABE 的面積 = 四邊形
$BEFD$ 的面積。求 ΔABE 的面積。

As shown in the figure, the area of ΔABC is 10 .
D, E, F are points on AB, BC and CA
respectively such that $AD : DB = 2 : 3$, and area
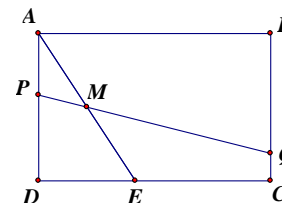of ΔABE = area of quadrilateral $BEFD$.
Find the area of ΔABE .

1998 HI7

在圖中，$ABCD$ 為一長方形，其中 $CD = 12$，且 E 為 CD 上一點，使得 $DE = 5$。
若 M 為 AE 的中點，而 P、Q 為兩點分別躺於 AD 和 BC 上，使得 PMQ 為一直線。
若 $PM : MQ = 5 : k$，求 k 的值。

In the figure, $ABCD$ is a rectangle with $CD = 12$. E is a
point on CD such that $DE = 5$. M is the mid-point of AE
and P, Q are points on AD and BC respectively such that
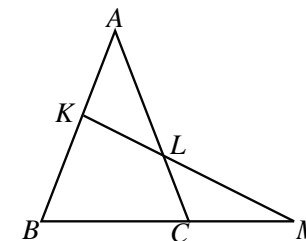PMQ is a straight line.
If $PM : MQ = 5 : k$, find the value of k.

1999 FI3.3

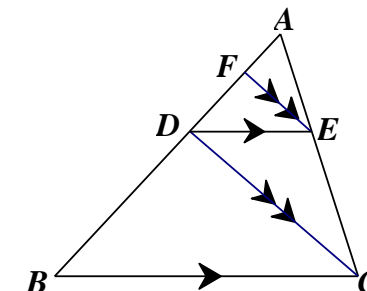在圖中，$AB = AC$ 和 $KL = LM$。
若 $LC = 1\text{ cm}$ 及 $KB = c\text{ cm}$，求 c 之值。
In the figure, $AB = AC$ and $KL = LM$.
If $LC = 1$ cm and $KB = c$ cm, find the value of c .

2002 HI5

在 ΔABC，$DE // BC$，$FE // DC$，$AF = 2$，FD
$= 3$ 和 $DB = X$。求 X 的值。

In ΔABC , $DE // BC$, $FE // DC$, $AF = 2$,
$FD = 3$ and $DB = X$. Find the value of X .

2003 HG10

圖中，ΔDEF 的面積是 30 cm^2。EIF、DJF 及 DKE 皆為直線。P 是 DI 和 FK
的相交點，$EI : IF = 1 : 2$，$FJ : JD = 3 : 4$，$DK : KE = 2 : 3$。
設 ΔDFP 的面積為 $B\text{ cm}^2$，求 B 的值。

In the figure, the area of ΔDEF is 30 cm^2. EIF, DJF
and DKE are straight lines. P is the intersection
point of DI and FK. Let $EI : IF = 1: 2$,
$FJ : JD = 3 : 4$, $DK : KE = 2 : 3$.
Let the area of ΔDFP be B cm^2, find the value of B.
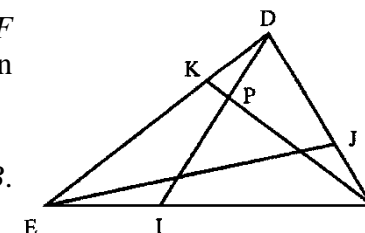
2009 HG10

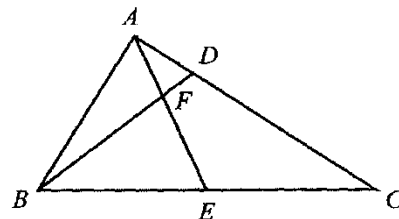如圖，ABC 是一三角形，E 是 BC 的中點，F 在 AE 上使得 $AE = 3AF$。
BF 的延綫與 AC 相交於 D。已知 ΔABC 的面積為 $48\,\text{cm}^2$。

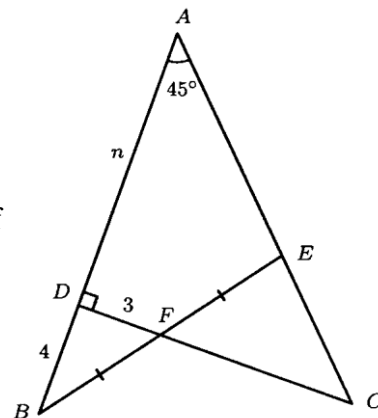設 ΔAFD 的面積為 $g\,\text{cm}^2$，求 g 的值。

In the figure, ABC is a triangle, E is the midpoint
of BC, F is a point on AE where
$AE = 3AF$.
The extension segment of BF meets AC at D.
Given that the area of ΔABC is 48 cm². Let the
area of ΔAFD be g cm², find the value of g.

2010 FG1.4

在圖中，若 $AB \perp CD$，F 是 BE 的中點，
$\angle A = 45°$，$DF = 3$, $BD = 4$ 及 $AD = n$，求 n 的
值。

In the figure, if $AB \perp CD$，F is the midpoint of
BE, $\angle A = 45°$, $DF = 3$, $BD = 4$ and $AD = n$,
find the value of n.

2022 P2Q4

圖一所示為一正方形。每一條邊的中點都連接對邊的兩
端點，由此形成一個四角星(著色部分)。

求 $\dfrac{\text{四角星的面積}}{\text{正方形的面積}}$ 的值。

Figure 1 shows a square. The midpoint of each side is joined
to the two end points of the opposite side and a four-pointed
star is thus formed (the shaded part).

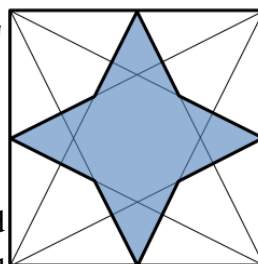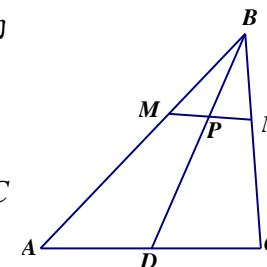Find the value of $\dfrac{\text{Area of the four point star}}{\text{Area of the square}}$.

Figure 1 圖一

2023 HG5

在圖一中，M 和 N 分別是ΔABC 的邊 AB 和 BC 上的
點。MN 與ΔABC 的中線相交於 P。

若 $\dfrac{AM}{BM} = \dfrac{5}{3}$ 及 $\dfrac{CN}{BN} = \dfrac{3}{2}$。求 $\dfrac{DP}{BP}$ 的值。

In Figure 1, M and N are points on AB and BC of ΔABC
respectively. MN and the median of ΔABC intersect at P.

If $\dfrac{AM}{BM} = \dfrac{5}{3}$ and $\dfrac{CN}{BN} = \dfrac{3}{2}$, find the value of $\dfrac{DP}{BP}$.

圖一 Figure 1

Answers

1984 FI4.1 15	1991 HI20 45	1992 HG6 10	1993 HG3 6	1998 HI7 19
1999 FI3.3 2	2002 HI5 7.5	2003 HG10 10	2009 HG10 $\dfrac{8}{5}$	2010 FG1.4 10
2022 P2Q4 $\dfrac{1}{3}$	2023 HG5 $\dfrac{19}{12}$			