2007 HI8

如圖，ΔPAC、ΔQBA、ΔRCB 及 ΔABC 皆是等邊三角形。點 X、Y 及 Z 分

別為 ΔPAC、ΔQBA 及 ΔRCB 的內心。

若 PA 的長度是 10 cm 及 ΔXYZ 的周界是 w cm，求 w 的值。

(註：三角形的內心為該三角形三條內角平分綫的交點。)

In the figure, ΔPAC, ΔQBA, ΔRCB and ΔABC are
equilateral triangles. The points X, Y and Z are the
incentres of ΔPAC, ΔQBA, ΔRCB respectively.

If the length of PA is 10 cm and the perimeter of ΔXYZ
is w cm, find the value of w. (Remark: the incentre of
a triangle is the point of intersection of the three
interior angle bisectors of the triangle.)
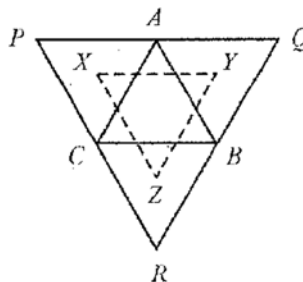
2019 HI12

在三角形 ABC 中，$AB = 14$、$BC = 48$ 及 $AC = 50$。將 P 及 Q 分別記為ΔABC
的內心及外心。設 PQ 的長度為 d 單位。求 d 的值。

In triangle ABC, $AB = 14$, $BC = 48$ and $AC = 50$. Denote the in-centre and
circumcentre of ΔABC by P and Q respectively. Let the length of PQ be d units.
Find the value of d .

2022 P1Q15

PQR 是一個等腰三角形，其中 $PQ = PR = 17$ and $QR = 16$。將 I 及 H 分別

記為 PQR 的內心及垂心。求 IH 長度的值。

PQR is an isosceles triangle with $PQ = PR = 17$ and $QR = 16$. Denote the in-
centre and the orthocentre of PQR by I and H respectively. Find the length of HI .

2024 HG9

若三角形的邊長為 25、39 及 56，求該三角形的內心及垂心之間的距離。

If the lengths of the three sides of a triangle are 25, 39 and 56, find the distance
between the incentre and the orthocentre of the triangle.

Answers

2007 HI8 30	2019 HI12 $5\sqrt{13}$	2022 P1Q15 $\dfrac{8}{15}$	2024 HG9 41	