

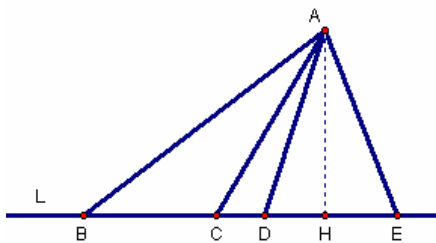


GSP —

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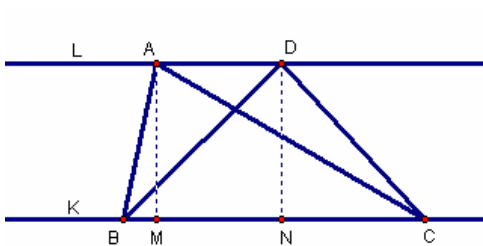
GSP

( ) ( ) ( )



$$\overline{BC} = \overline{DE}$$

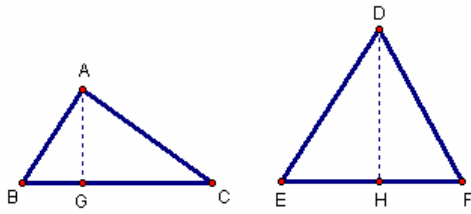
$$ABC = \frac{1}{2} \cdot \overline{BC} \cdot \overline{AH} = \frac{1}{2} \cdot \overline{DE} \cdot \overline{AH} = ADE$$



$$L // K$$

$$ABC = \frac{1}{2} \cdot \overline{BC} \cdot \overline{AM} = \frac{1}{2} \cdot \overline{BC} \cdot \overline{DN} = DBC$$

( )



Pf. 
$$\frac{ABC}{AG} = \frac{DEF}{DH} = \frac{AB \cdot BC}{DE \cdot EF} \quad ( )$$

$$ABG \sim DEH \text{ (AA )}$$

$$\frac{AG}{DH} = \frac{AB}{DE}$$

$$\overline{AG} = k \overline{AB} \quad \overline{DH} = k \overline{DE}$$

$$\begin{aligned} \frac{ABC}{DEF} &= \left( \frac{1}{2} \cdot \overline{BC} \cdot \overline{AG} \right) \left( \frac{1}{2} \cdot \overline{EF} \cdot \overline{DH} \right) \\ &= \left( \overline{BC} \cdot k \overline{AB} \right) \left( \overline{EF} \cdot k \overline{DE} \right) \\ &= \left( \overline{AB} \cdot \overline{BC} \right) \left( \overline{DE} \cdot \overline{EF} \right) \end{aligned}$$

( )

P ABC

P ABC

ABC P B

P

ABC

1.  $\overline{AC}$  D

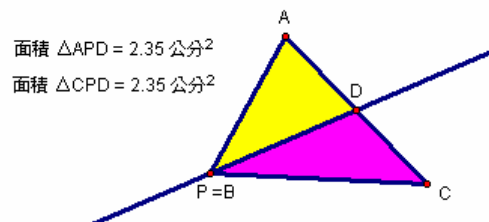
2.  $\overline{PD}$  PD ( )

1. P B D  $\overline{AC}$

$\overline{PD}$   $\overline{AC}$

2.  $APD = CPD = \frac{1}{2} ABC \dots ( )$

PD



( )

P ABC

ABC P  $\overline{BC}$

P

ABC

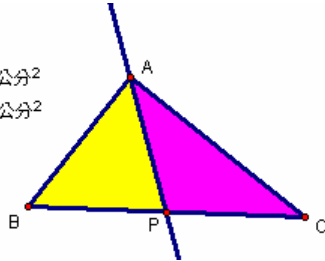
1.  $\overline{AP}$

2. AP ( )

1.  $\overline{AP} \perp \overline{BC}$

2.  $\text{Area } \triangle ABP = \text{Area } \triangle ACP = \frac{1}{2} \text{Area } \triangle ABC \dots ( )$

面積  $\triangle ABP = 2.85$  公分<sup>2</sup>  
面積  $\triangle ACP = 2.85$  公分<sup>2</sup>



( ) P ABC  
ABC P  $\overline{BC}$  P B P C P  $\overline{BC}$

P ABC

1.  $\overline{AP}$

2.  $\overline{BC}$  D D  $\overline{DE} \parallel \overline{AP}$   $\overline{AB}$  E ( 1)

3.  $\overline{PE}$  PE ( )

1.  $\overline{AD}$  ( )

2.  $\overline{DE} \parallel \overline{AP}$   $\text{Area } \triangle ADE = \text{Area } \triangle PED \dots ( )$

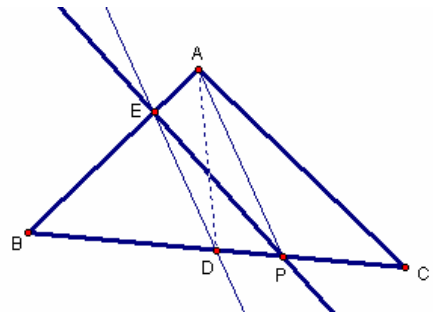
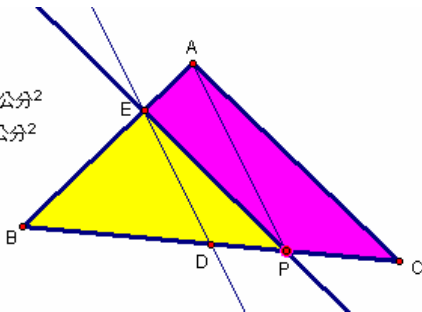
3.  $\overline{AD}$

$\text{Area } \triangle ABD = \frac{1}{2} \text{Area } \triangle ABC$

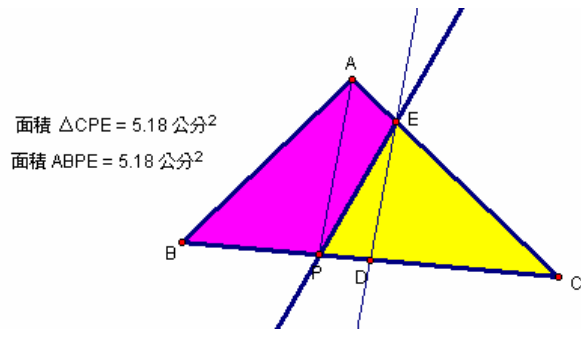
4.  $\text{Area } \triangle BPE = \text{Area } \triangle BED + \text{Area } \triangle PED = \text{Area } \triangle BED + \text{Area } \triangle ADE = \text{Area } \triangle ABD = \frac{1}{2} \text{Area } \triangle ABC$

5.  $\overline{PE}$

面積  $\triangle BPE = 5.18$  公分<sup>2</sup>  
面積  $\triangle AEP = 5.18$  公分<sup>2</sup>



( 1) P D D  $\overline{DE} \parallel \overline{AP}$   $\overline{AC}$  E  $\overline{PE}$



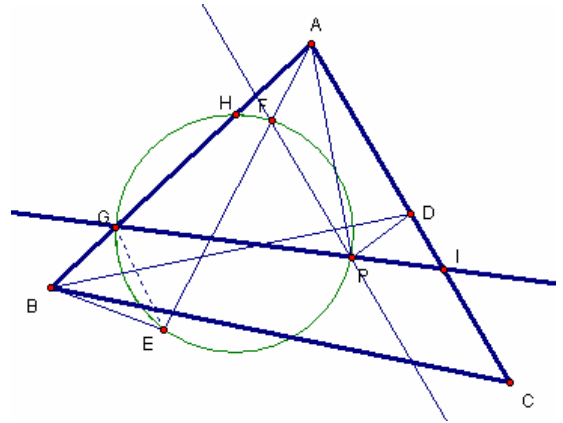
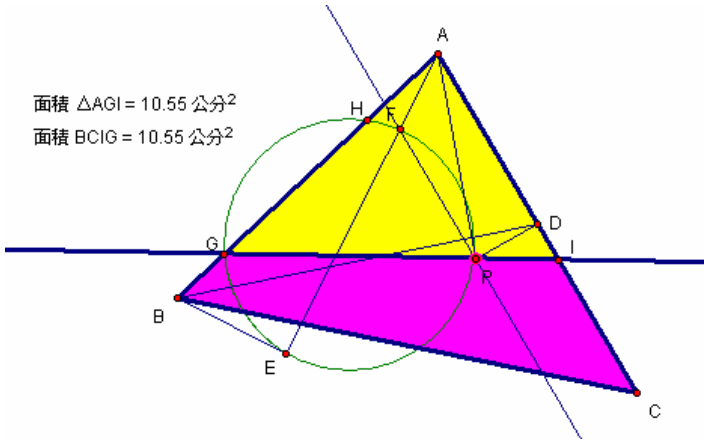
( ) P

ABC  
 ABC P ABC  
 P ABC

1.  $\overline{AC}$  D  $\overline{BD}$   $\overline{AP}$   $\overline{DP}$
2. E E P  $\overline{AB}$  BAE=
3. PAD ABE= APD
3. P  $\overline{PF} // \overline{AC}$   $\overline{AE}$  F
4. P E F O  $\overline{AB}$  G H
5.  $\overline{GP}$   $\overline{AC}$  I
6. GPI ( )
1. ABE APD
2. BAE= PAD ABE= APD
3. ABE~ APD (AA )
4.  $\frac{\overline{AB}}{\overline{AP}} = \frac{\overline{AE}}{\overline{AD}}$   $\overline{AB} \cdot \overline{AD} = \overline{AP} \cdot \overline{AE}$  ..... ①
5.  $\overline{PF} // \overline{AC}$  AI P= FPG( )
6.  $\overline{GE}$   $FEG = \frac{1}{2}$  GF= FPG ( )
7. 5. 6. AI P= FEG
8. I AP= EAG ... ( PAD= BAE)
9. I AP~ EAG (AA )
10.  $\frac{\overline{AI}}{\overline{AE}} = \frac{\overline{AP}}{\overline{AG}}$   $\overline{AP} \cdot \overline{AE} = \overline{AI} \cdot \overline{AG}$  ..... ②
11. ① ②  $\overline{AI} \cdot \overline{AG} = \overline{AB} \cdot \overline{AD}$
12. AI G ABD=(  $\frac{\overline{AI} \cdot \overline{AG}}{\overline{AB} \cdot \overline{AD}}$  ) ( ) ( )
13.  $\overline{BD}$  ABD= $\frac{1}{2}$  ABC

14.  $AI \cdot G = \frac{1}{2} \cdot ABC$

15.  $GPI = ( )$



( ) P ABC  
ABC P  $\overline{BC}$

P ABC

1.  $\overline{AC} \quad D \quad \overline{BD} \quad \overline{AP} \quad \overline{DP}$

2.  $E \quad E \quad P \quad \overline{AB} \quad BAE =$

$PAD \quad ABE = \quad APD$

3.  $P \quad \overline{PF} // \overline{AC} \quad \overline{EA} \quad F$

4.  $P \quad E \quad F \quad O \quad \overline{AB} \quad G$

5.  $\overline{GP} \quad \overline{AC} \quad H$

6.  $GHP \quad ( )$

1.  $ABE \quad APD$

2.  $BAE = \quad PAD \quad ABE = \quad APD$

3.  $ABE \sim \quad APD \quad (AA \quad )$

4.  $\overline{AB} \quad \overline{AP} = \overline{AE} \quad \overline{AD} \quad \overline{AB} \cdot \overline{AD} = \overline{AP} \cdot \overline{AE} \quad \dots \dots \textcircled{1}$

5.  $\overline{AC} \quad O \quad I \quad J$

6.  $\overline{PF} // \overline{AC} \quad JP = \quad IF \quad \dots ( )$

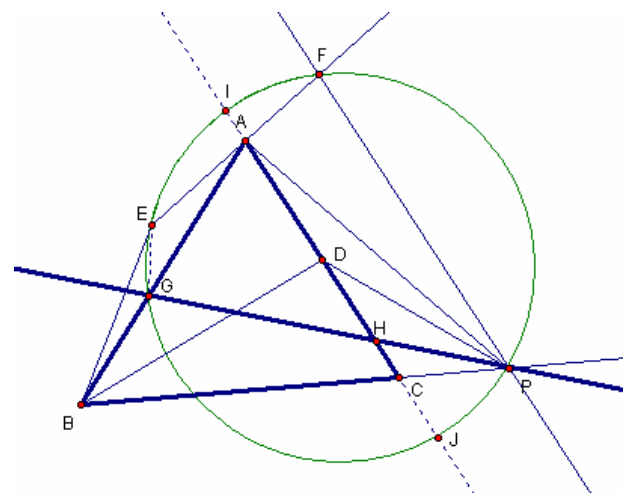
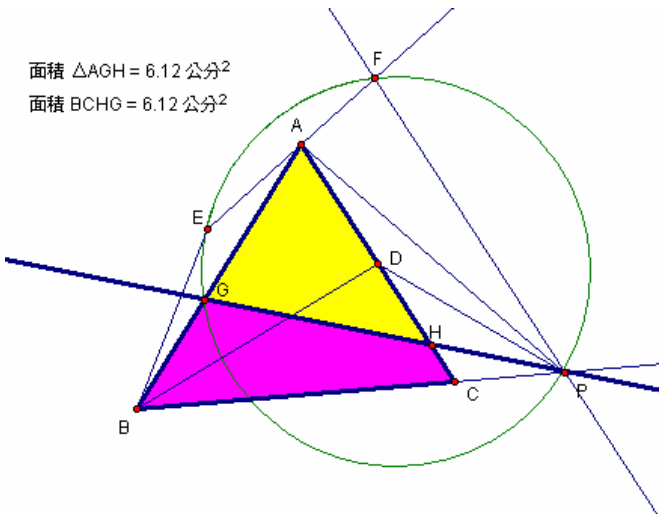
7.  $\overline{GE} \quad AHP = \quad IHP$

$= \frac{1}{2} ( \quad IF + \quad FP + \quad JG ) \quad \dots ( )$

$= \frac{1}{2} ( \quad JP + \quad FP + \quad JG ) \quad \dots ( \quad JP = \quad IF )$

$= \quad FEG \quad \dots ( )$

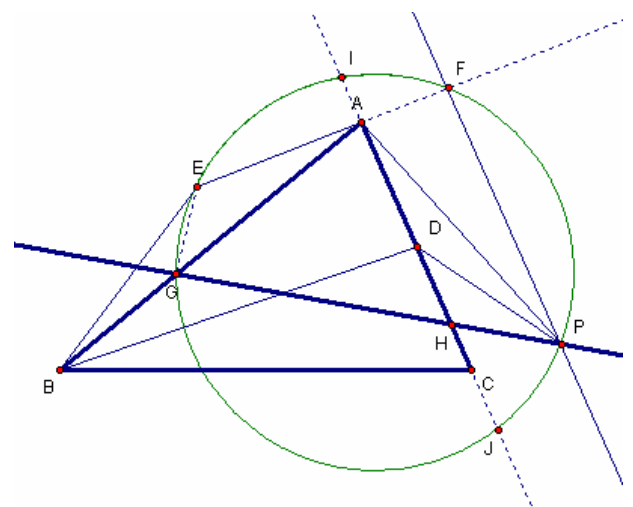
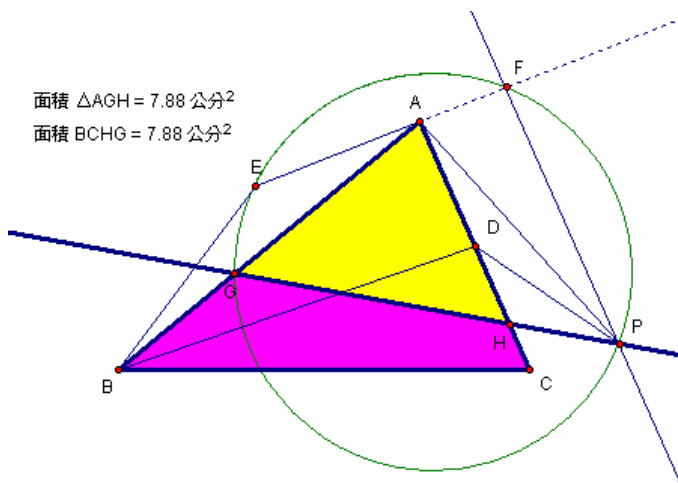
- = AEG
8.  $\angle HAP = \angle EAG \dots (\angle PAD = \angle BAE)$
  9.  $\triangle HAP \sim \triangle EAG$  (AA)
  10.  $\frac{AH}{AE} = \frac{AP}{AG} \quad \overline{AP} \cdot \overline{AE} = \overline{AG} \cdot \overline{AH} \dots \dots \textcircled{2}$
  11.  $\textcircled{1} \quad \textcircled{2} \quad \overline{AG} \cdot \overline{AH} = \overline{AB} \cdot \overline{AD}$
  12.  $\frac{AGH}{ABD} =$   
 $= \frac{(\overline{AG} \cdot \overline{AH})}{(\overline{AB} \cdot \overline{AD})} \dots (\quad \quad)$   
 $= 1 \quad 1$
  13.  $\frac{BD}{ABD} = \frac{1}{2} ABC$
  14.  $\frac{AGH}{ABD} = \frac{1}{2} ABC$
  15.  $\frac{GHP}{\quad \quad} (\quad \quad)$



( ) P ABC P ABC P

1.  $\frac{AC}{BD} = \frac{AP}{DP}$
2.  $\frac{AE}{EP} = \frac{AB}{BP}$  BAE =
3.  $\frac{PAD}{ABE} = \frac{APD}{\quad \quad}$
4.  $\frac{PF}{AC} = \frac{EA}{\quad \quad}$  F O AB G
5.  $\frac{GP}{AC} = \frac{H}{\quad \quad}$

6.  $\triangle GHP$  ( )
1.  $\triangle ABE \cong \triangle APD$
2.  $\angle BAE = \angle PAD$   $\angle ABE = \angle APD$
3.  $\triangle ABE \sim \triangle APD$  (AA )
4.  $\frac{\overline{AB}}{\overline{AP}} = \frac{\overline{AE}}{\overline{AD}}$   $\overline{AB} \cdot \overline{AD} = \overline{AP} \cdot \overline{AE}$  ..... ①
5.  $\overline{AC}$   $O$   $I$   $J$
6.  $\overline{PF} \parallel \overline{AC}$   $JP = IF$  ... ( )
7.  $\overline{GE}$   $\triangle AHP = \triangle IHP$   
 $= \frac{1}{2} (IF + FP + JG)$  ... ( )  
 $= \frac{1}{2} (JP + FP + JG)$  ... (  $JP = IF$  )  
 $= \triangle FEG$  ... ( )  
 $= \triangle AEG$
8.  $\angle HAP = \angle EAG$  ... (  $\angle PAD = \angle BAE$  )
9.  $\triangle HAP \sim \triangle EAG$  (AA )
10.  $\frac{\overline{AH}}{\overline{AE}} = \frac{\overline{AP}}{\overline{AG}}$   $\overline{AP} \cdot \overline{AE} = \overline{AG} \cdot \overline{AH}$  ..... ②
11. ① ②  $\overline{AG} \cdot \overline{AH} = \overline{AB} \cdot \overline{AD}$
12.  $\triangle AGH \cong \triangle ABD$   
 $= (\overline{AG} \cdot \overline{AH}) = (\overline{AB} \cdot \overline{AD})$  ... ( ( ) )  
 $= 1 \cdot 1$
13.  $\overline{BD}$   $\triangle ABD = \frac{1}{2} \triangle ABC$
14.  $\triangle AGH = \triangle ABD = \frac{1}{2} \triangle ABC$
15.  $\triangle GHP$  ( )



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