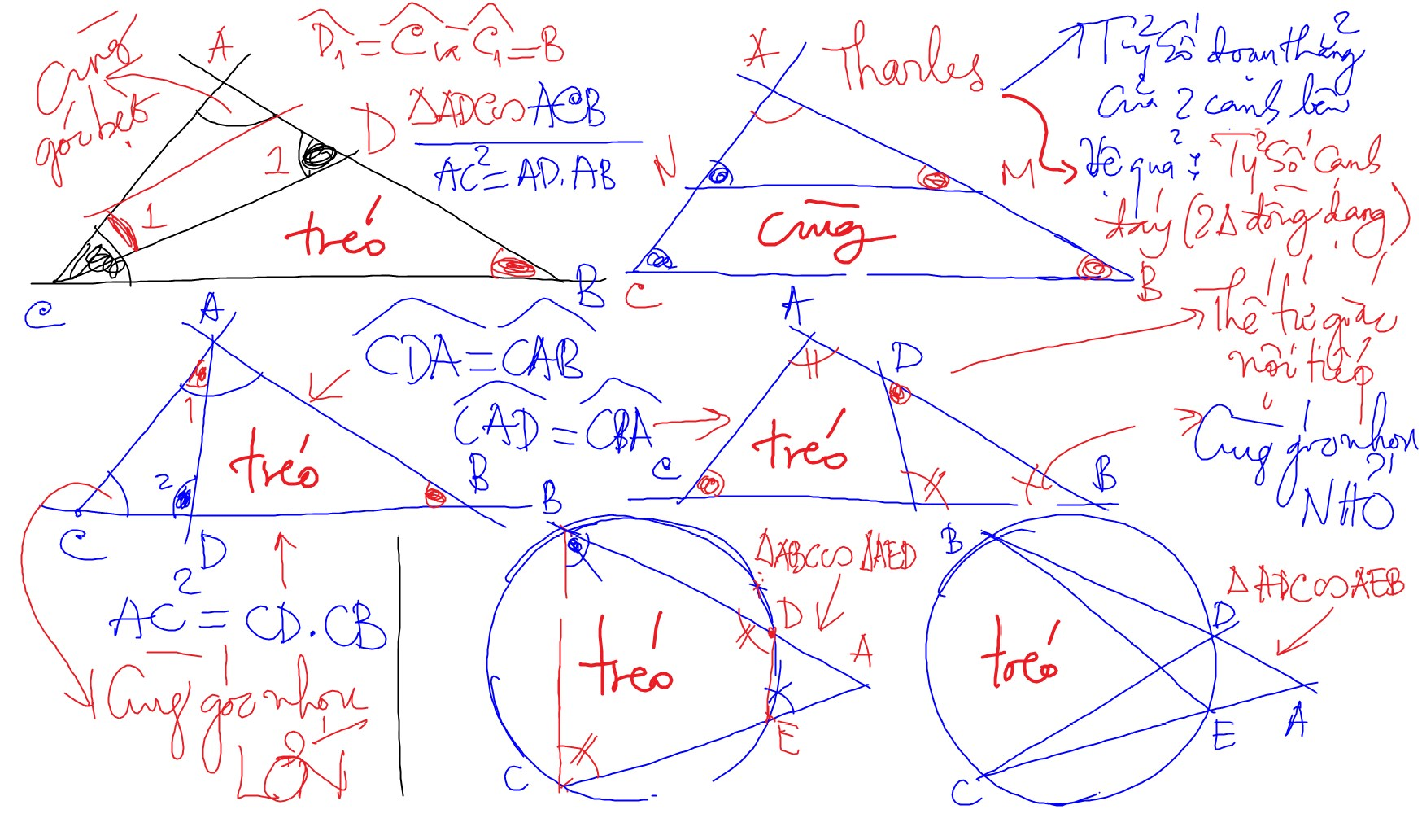


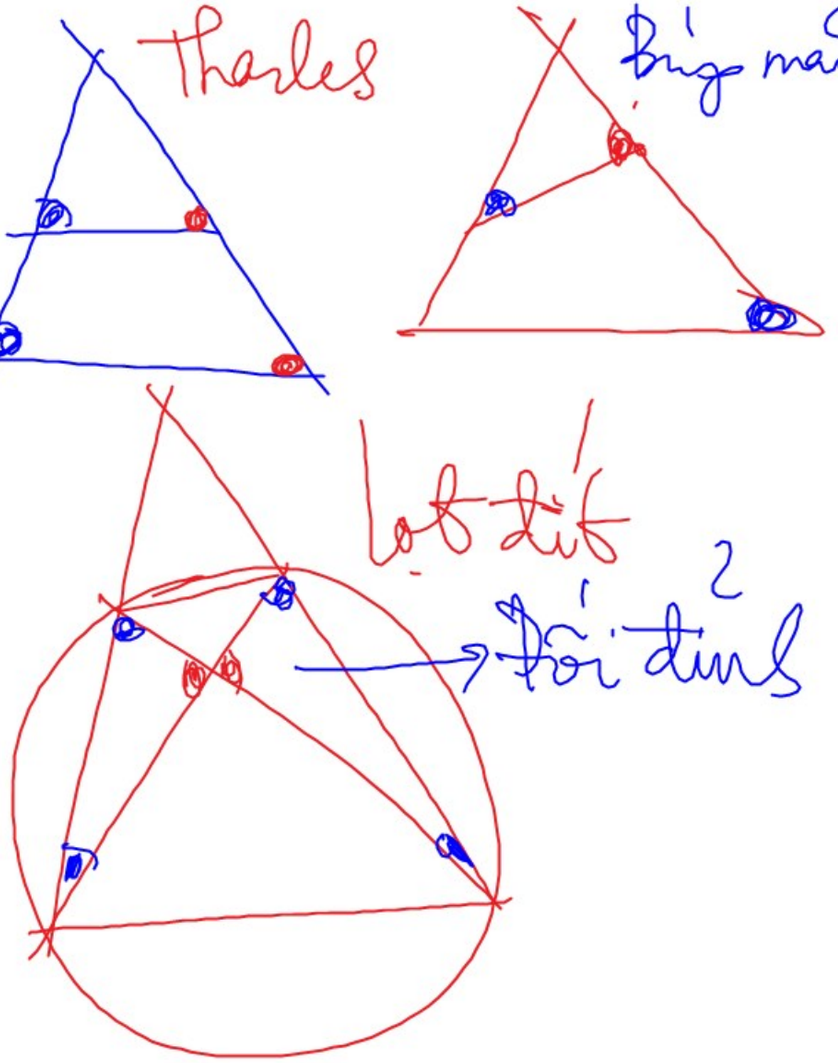
Cùng góc bẹt
D1 = C và C1 = B
ΔADC ∽ ACB
AC² = AD.AB
tréo
Thales
Tỷ số đoạn thẳng của 2 cạnh bên
Tỷ số cạnh đáy (2Δ đồng dạng)
Cùng
CDA = CAB
CAD = CBA
Thế tứ giác nội tiếp
Cùng góc nhọn
NHỎ
AC² = CD.CB
Cùng góc nhọn
LỚN
ΔABC ∽ ΔAED
ΔADC ∽ ΔAEB

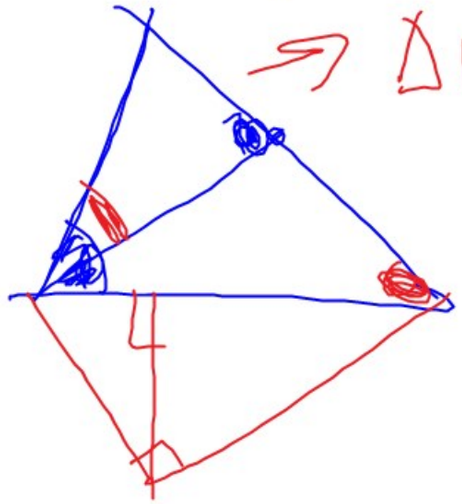
Thales

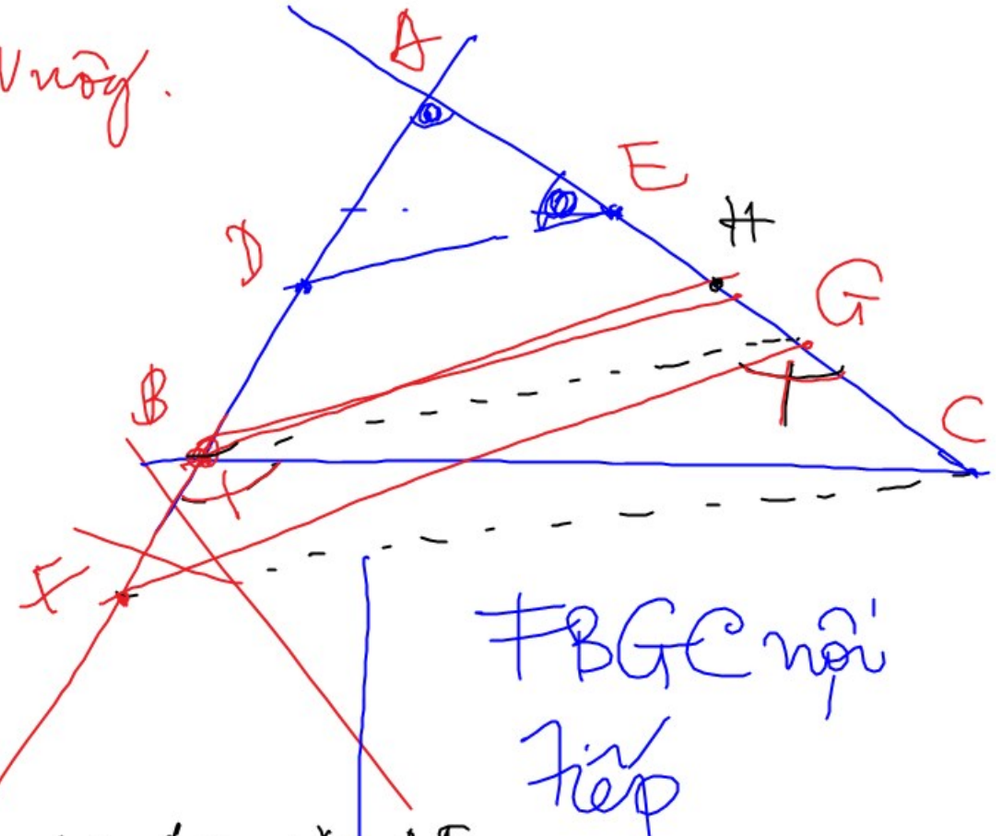
Bùi mảng

→ Δ vuông.

Lốt tứ 2 → đồng dạng.







FBGC nội tiếp

$AG \cdot AC = AB \cdot AF$

$\frac{AG}{AF} = \frac{AB}{AC}$

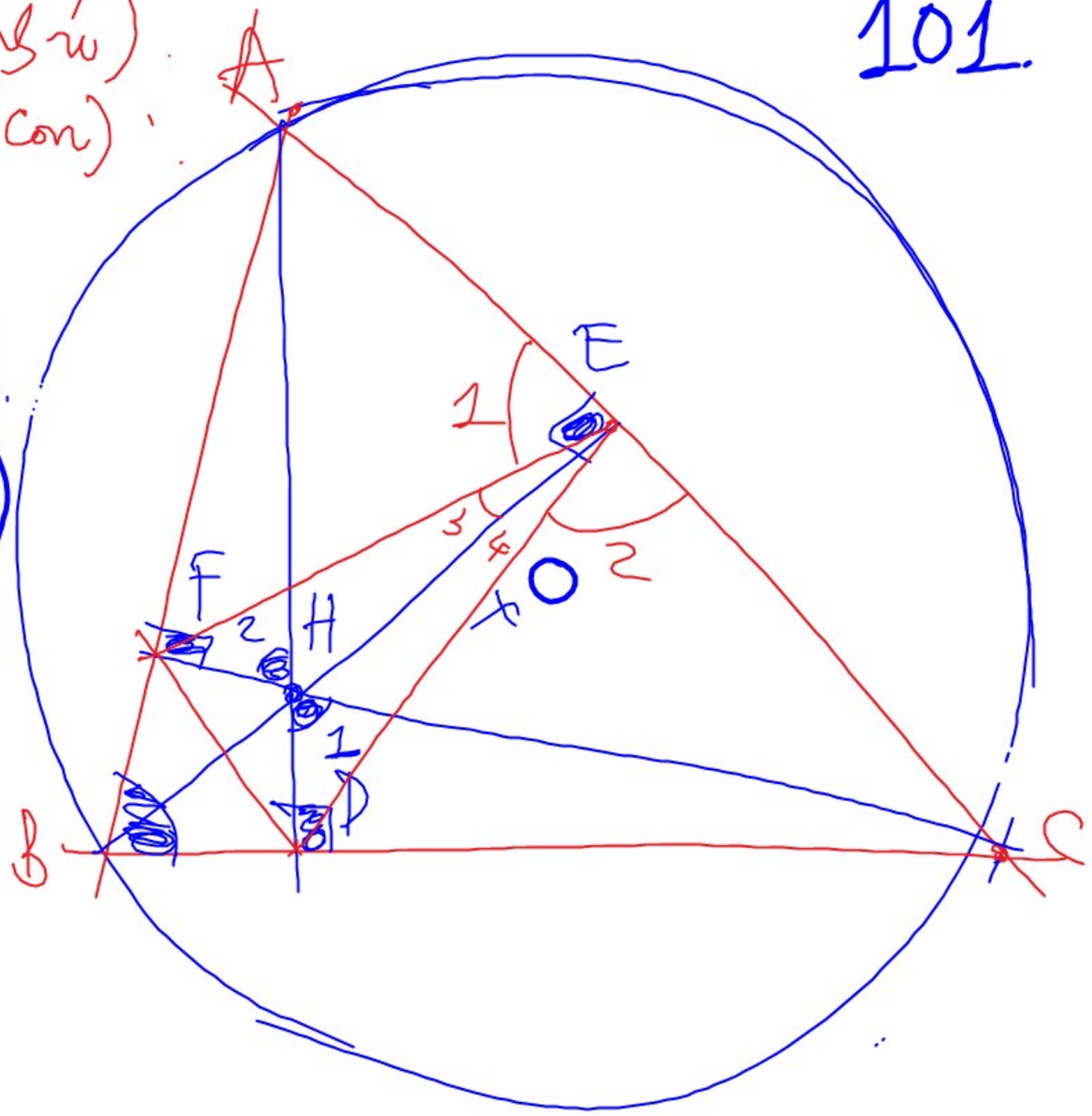
$\Delta AGB \backsim \Delta AFC$

$\Delta AGF \backsim \Delta ABC$

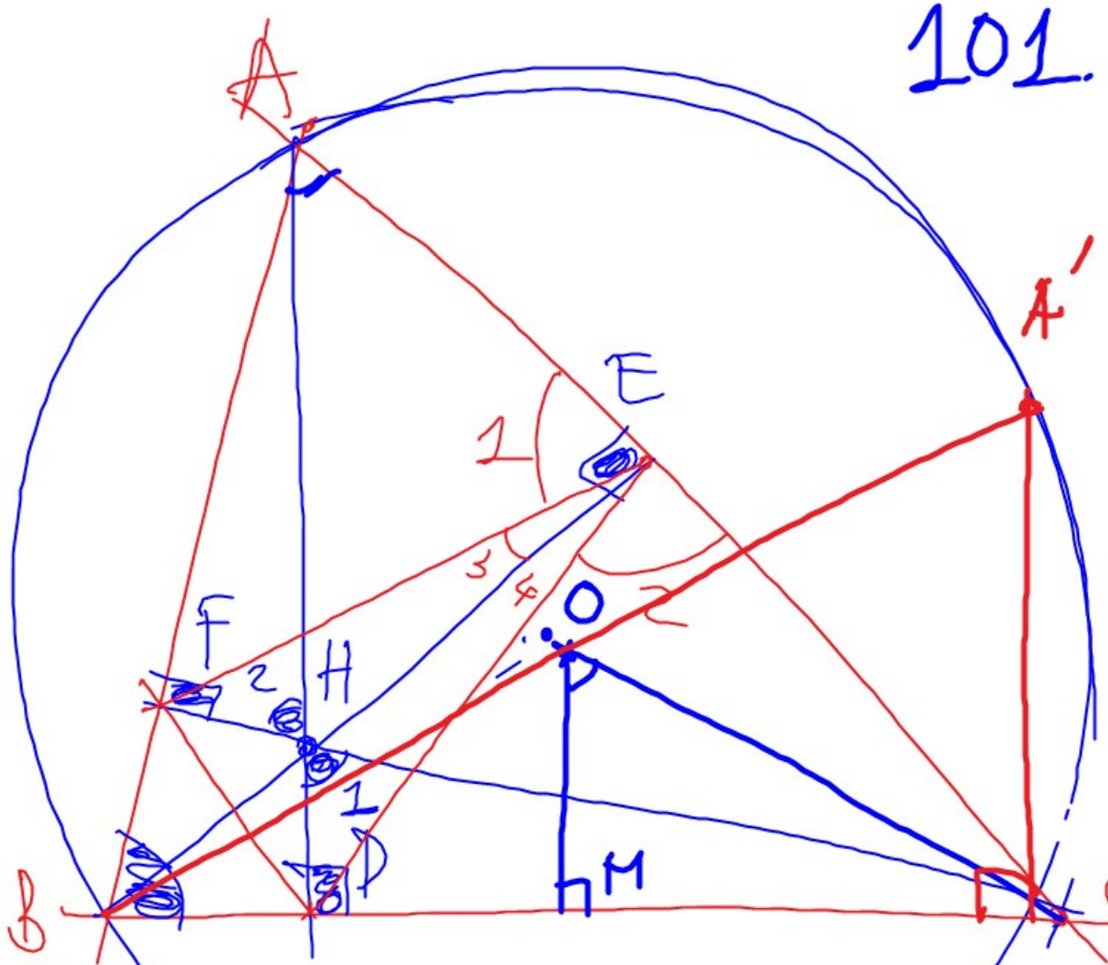
- $\Delta BDF \backsim \Delta EDC \Rightarrow BD \cdot DC = DF \cdot DE$ (Bằng nhau)
- $BDA \backsim \Delta HDC \Rightarrow BD \cdot DC = DH \cdot DA$ (Hệ thức con)
- Lập tỉ số $\Delta BDA \backsim \Delta BFC$
- $HFA \backsim HDC$ (đối đỉnh $\rightarrow$ Bằng)
- $AF \cdot AB = AH \cdot AD = AE \cdot AC$ (Bất cây pt)

(Cát tuyến chung)

- $\hat{B}_1 = \hat{H}_1 = \hat{H}_2 = \hat{E}_1 = \hat{E}_2$
- $\hat{E}_3 = \hat{E}_4$ } Chắn cung cao và đối đỉnh $\rightarrow$ liên là tia phân giác
- $\overset{\frown}{FDE} = 2\overset{\frown}{FBE}$ x
- $\cos \hat{A} = \frac{EF}{BC}$

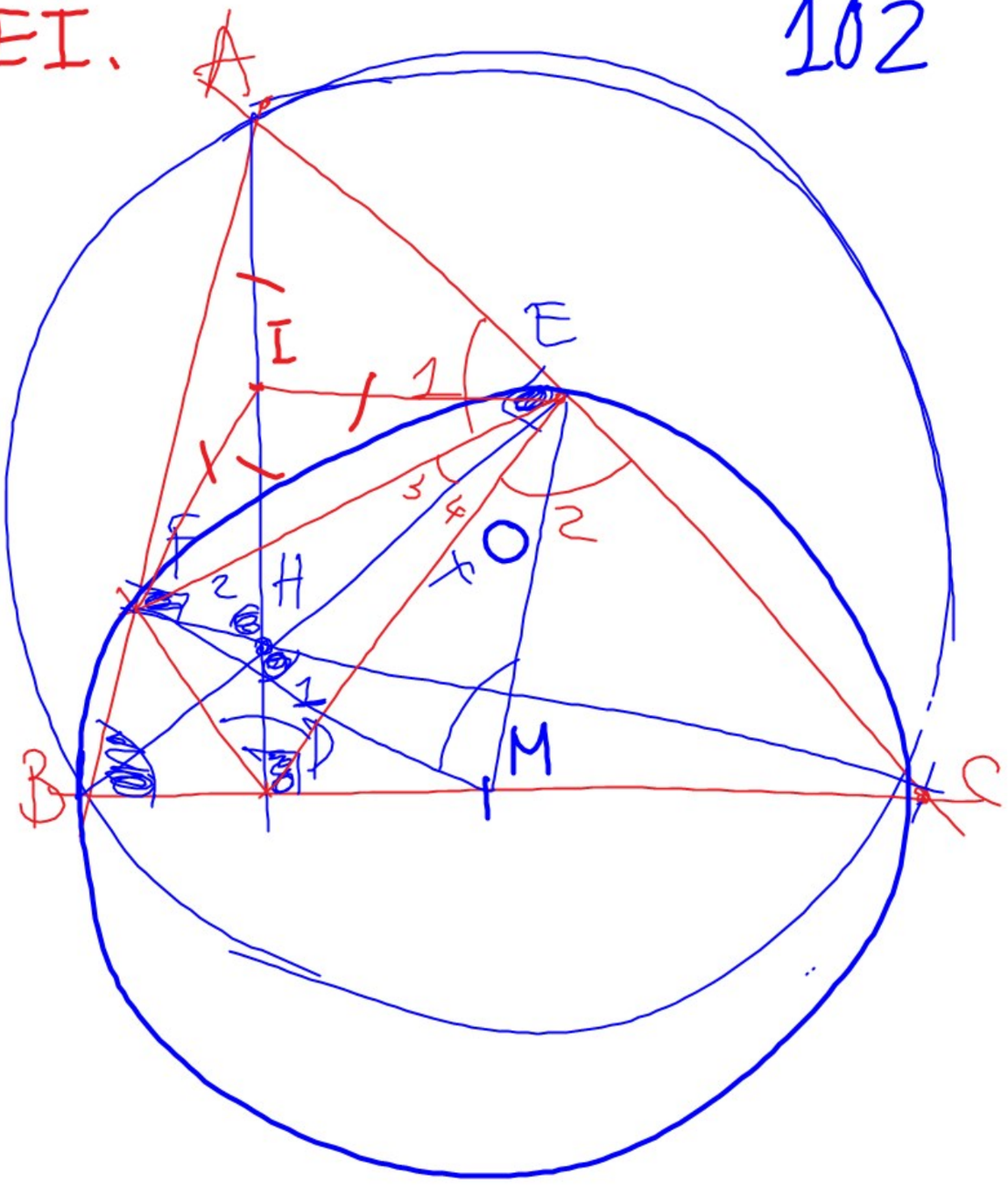


$\cdot \cos\hat{A} = \frac{EF}{BC}$



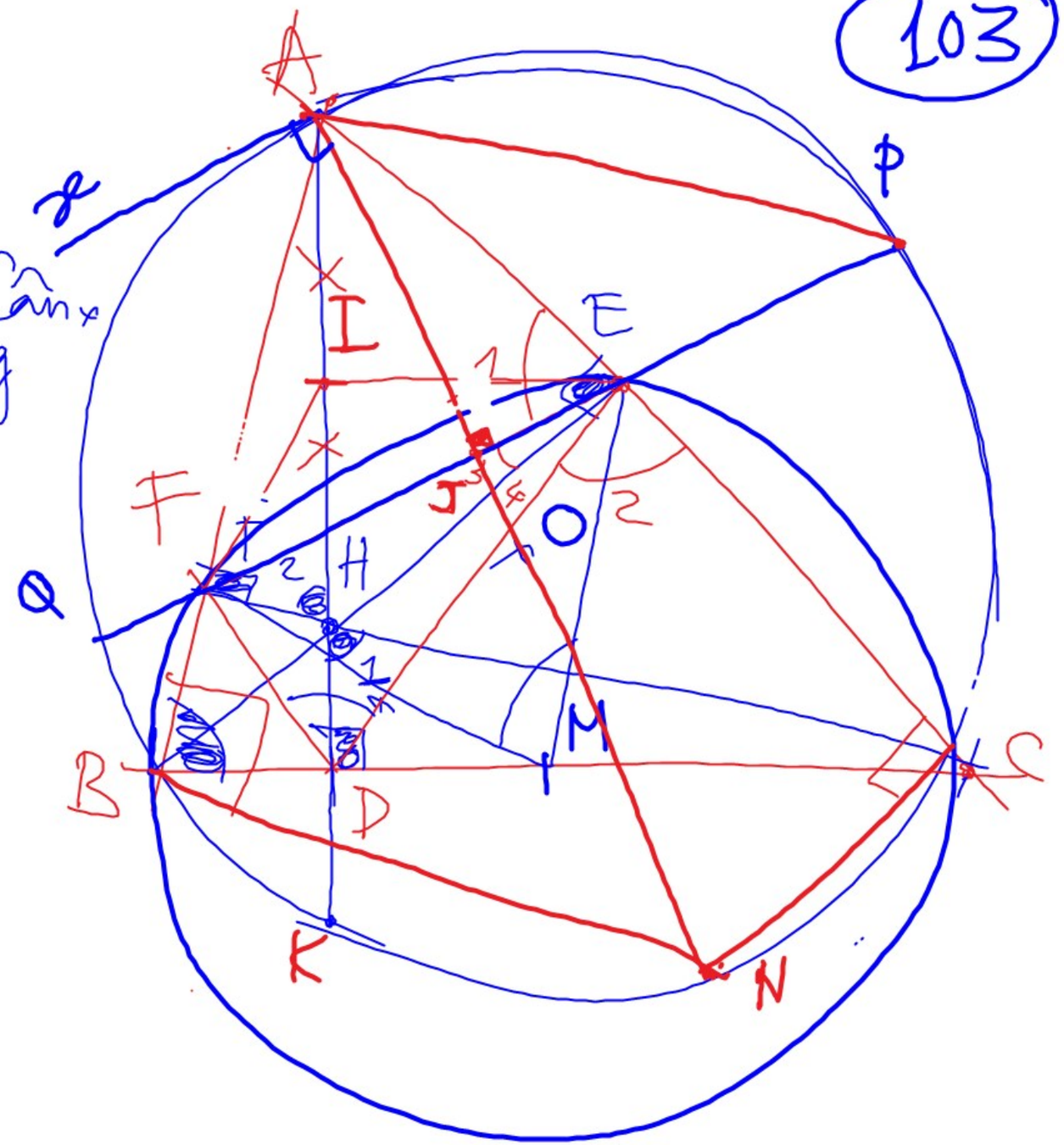
$\sin\widehat{BAC} = \frac{BC}{2R} = \frac{BC}{2} \cdot R = \sin\widehat{MOC}.$

Euler (Ole)/ $\overset{\frown}{FDE} = \overset{\frown}{2RDI} = 2\overset{\frown}{FEI}$.



Sơn Sơn

- HBNC là hình bình hành.
- HD = DK ⇒ ΔHCK cân và ∽ ΔFIH.
- HC = CK = BN ⇒ BKNC là hình thang cân ×
- ΔVuông ADC ∽ ΔVuông ABN.
- $AH^2 + BC^2 = BH^2 + AC^2 = CH^2 + AB^2 = 4R^2$
- OA ⊥ EC (Kẻ 2 tiếp tuyến tại A và C).
  ⇒ AM là trung trực PQ ×.
- $AP^2 = AE \cdot AC$ và $BQ^2 = BF \cdot BA$.
  ⇒ JECN & JFBN nội tiếp ×
- AH = BC ⇒ $\widehat{BAC} = 45^\circ$ ×



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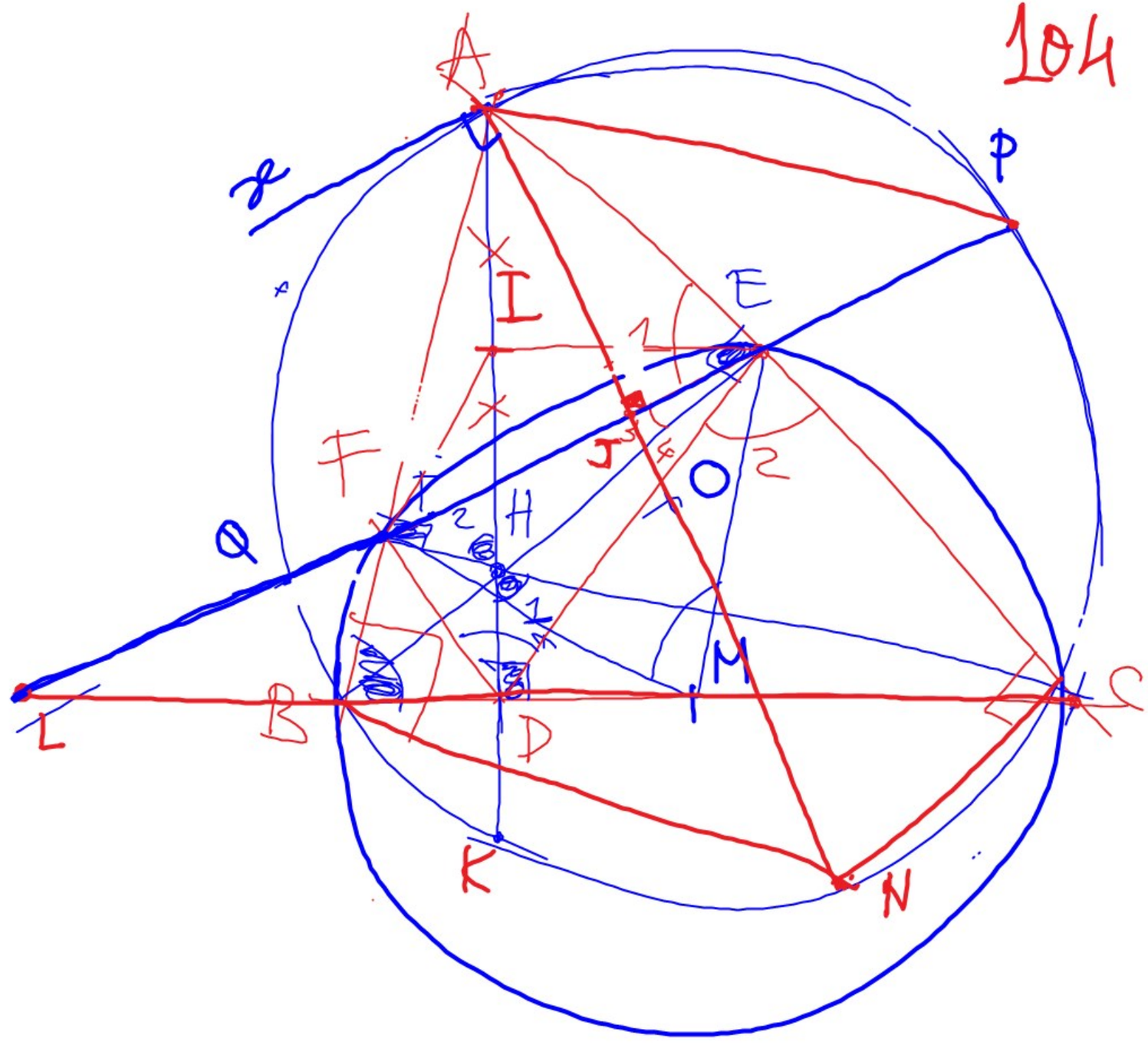
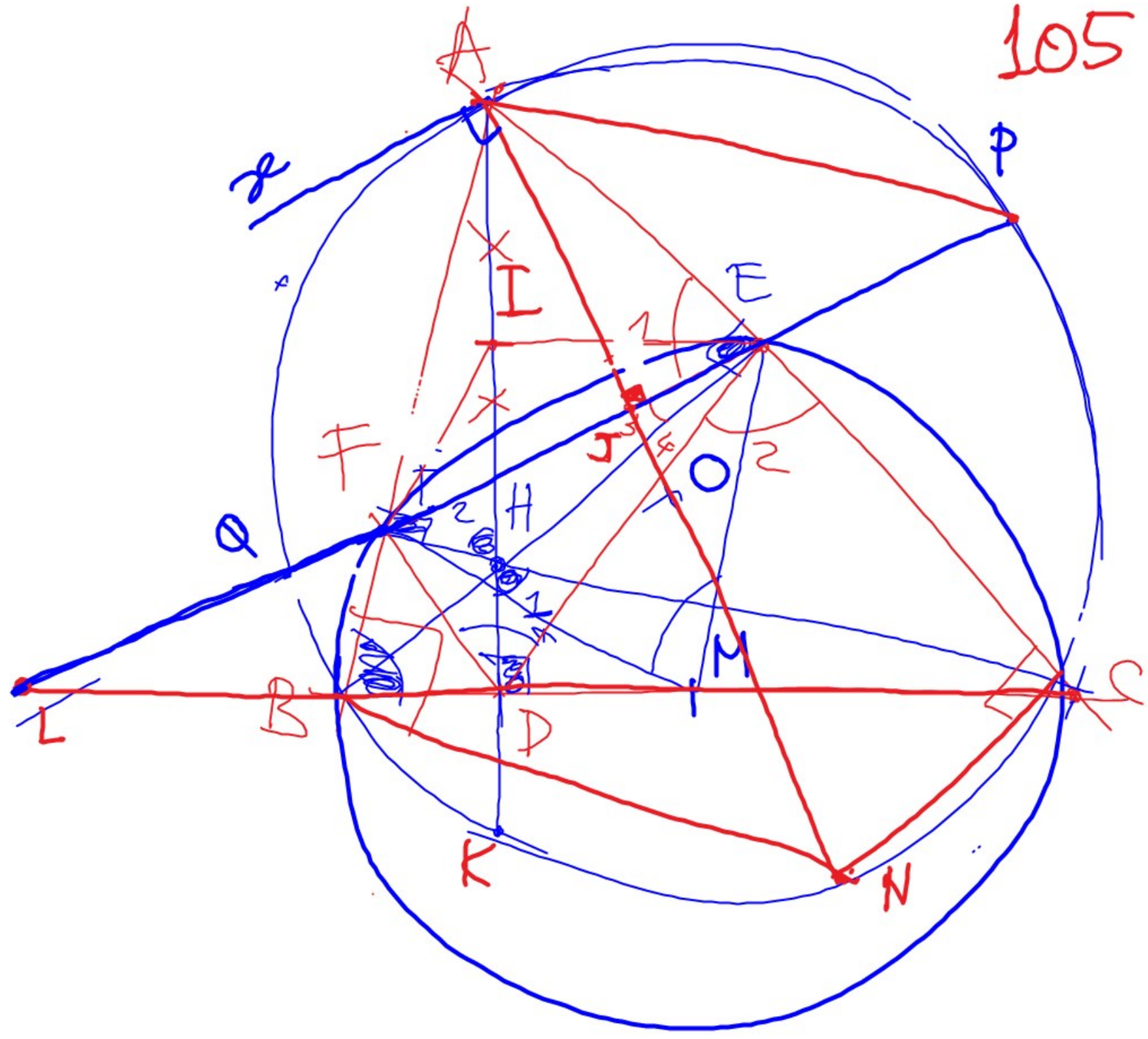
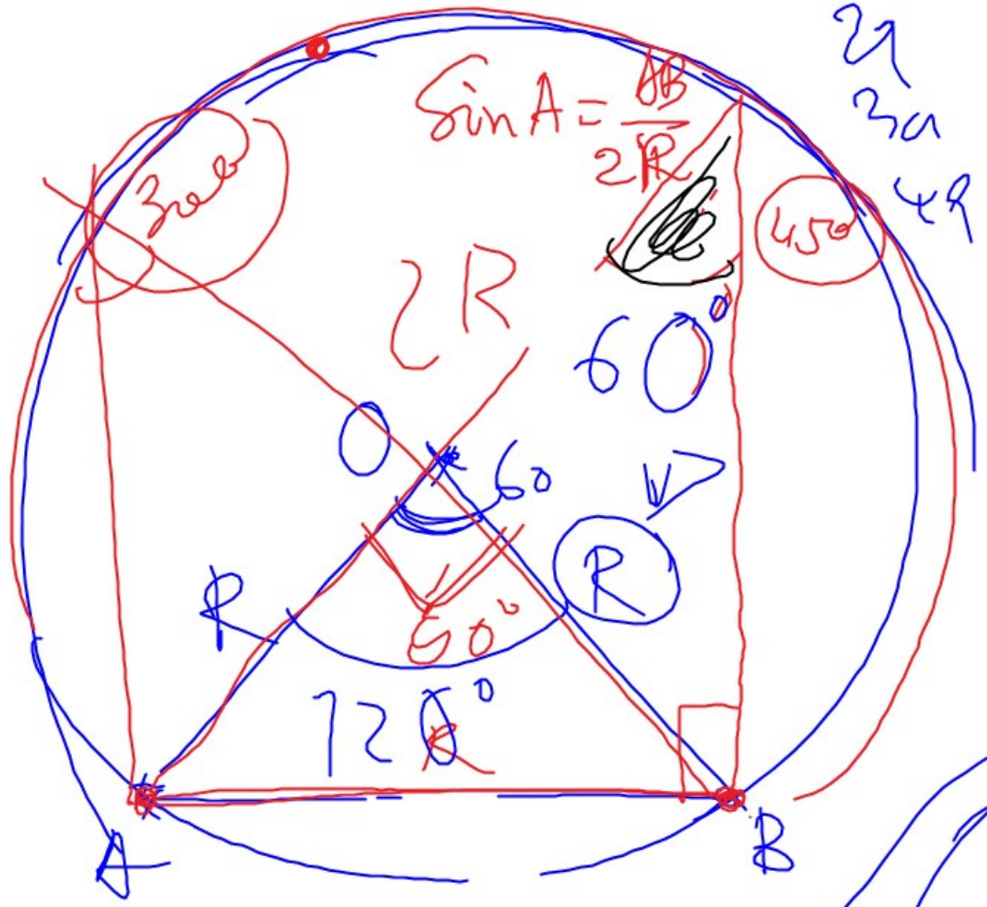
Sim Son



Đảo Sim Son

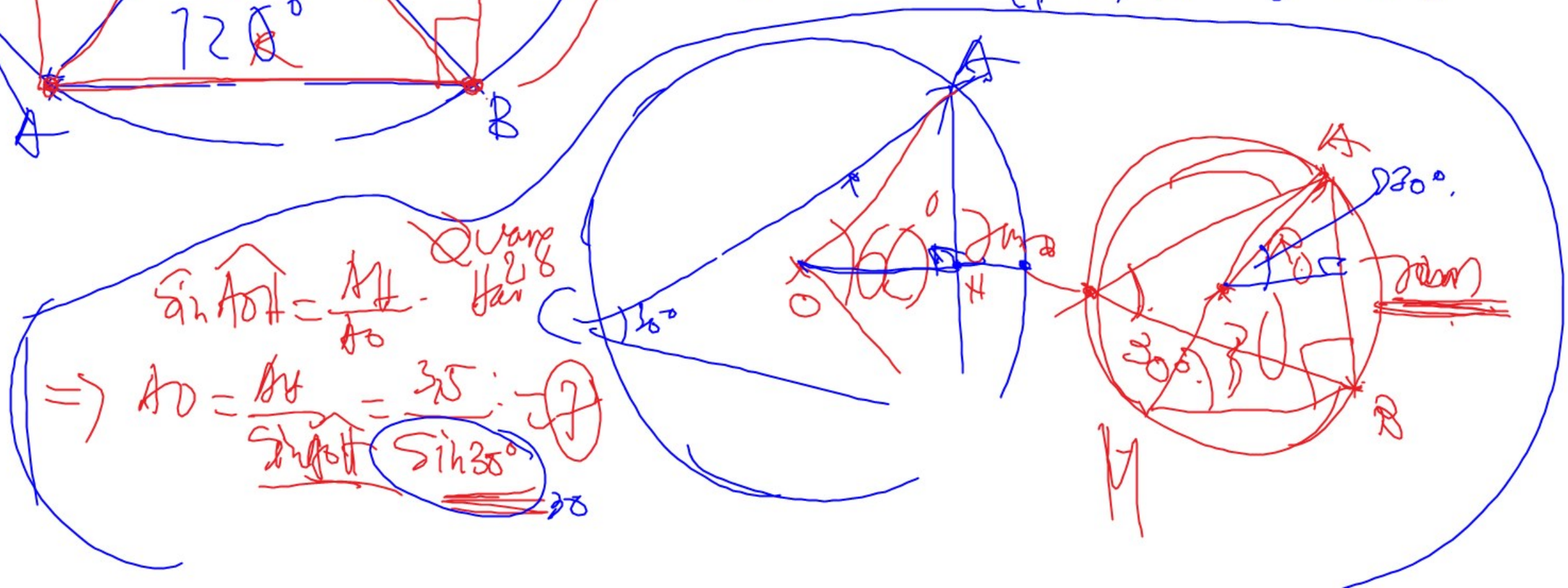




Độ dài cần tính AB	R	R√2	R√3
Góc AOB	60	90°	120°

$\Rightarrow \sin 45^\circ = \frac{AB}{2R} \Rightarrow AB = 2R \cdot \sin 45^\circ = 2R\frac{\sqrt{2}}{2}$

$\sin 60^\circ = \frac{AB}{2R} \Rightarrow AB = 2R \cdot \sin 60^\circ = \sqrt{3} \cdot R$



$x_0 \frac{x}{\sqrt{3}} = 2400$

$x^2 = 2400\sqrt{3}$

$x^2 = 4 \cdot 6 \cdot 10^2 \cdot \sqrt{3}$

$x = 2 \cdot 10 \cdot \sqrt{6} \cdot \sqrt{\sqrt{3}}$

$= 20\sqrt{6} \cdot \sqrt{\sqrt{3}}$

$\frac{R \cdot R\sqrt{3}}{2} = \frac{1200}{\sqrt{3}} = 400$

$R^2 = \frac{400}{\sqrt{3}} \Rightarrow R = \frac{20}{\sqrt{\sqrt{3}}} = \frac{20 \cdot \sqrt{\sqrt{3}}}{\sqrt{3}}$

$= 20\sqrt{3} \sqrt{\sqrt{3}}$

$\frac{20\sqrt{2} \cdot \sqrt{3}}{\sqrt{3}} \sqrt{\sqrt{3}}$

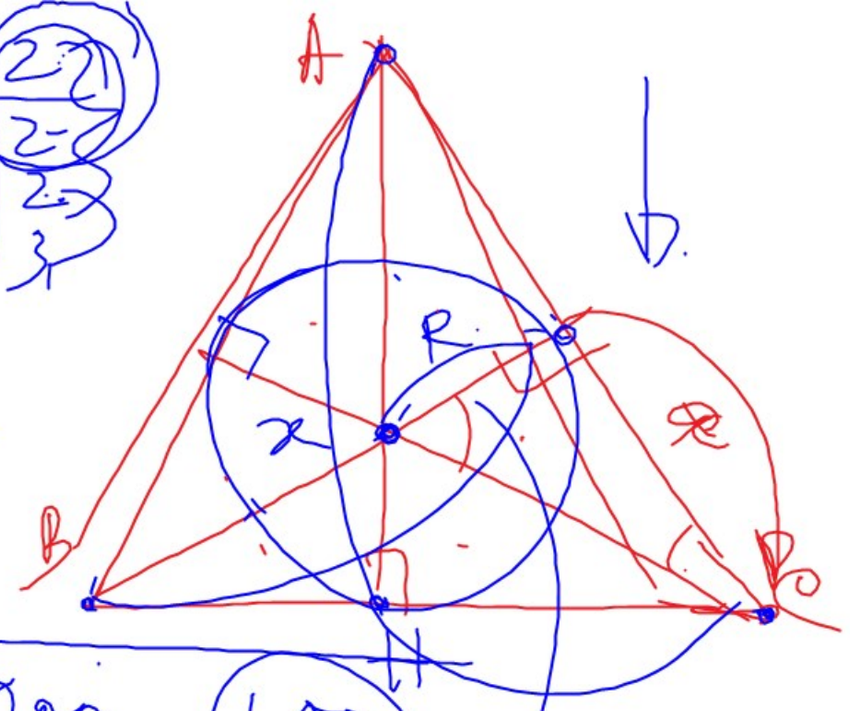
$\frac{1}{3} x^2 = 2400\sqrt{3}$

$x = 20\sqrt{6} \cdot \sqrt{3}$

$= 60\sqrt{2}$

$\Rightarrow R = \frac{1}{3} x = 20\sqrt{2}$

$2 \cdot 20\sqrt{2} \cdot \sqrt{\sqrt{3}}$



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