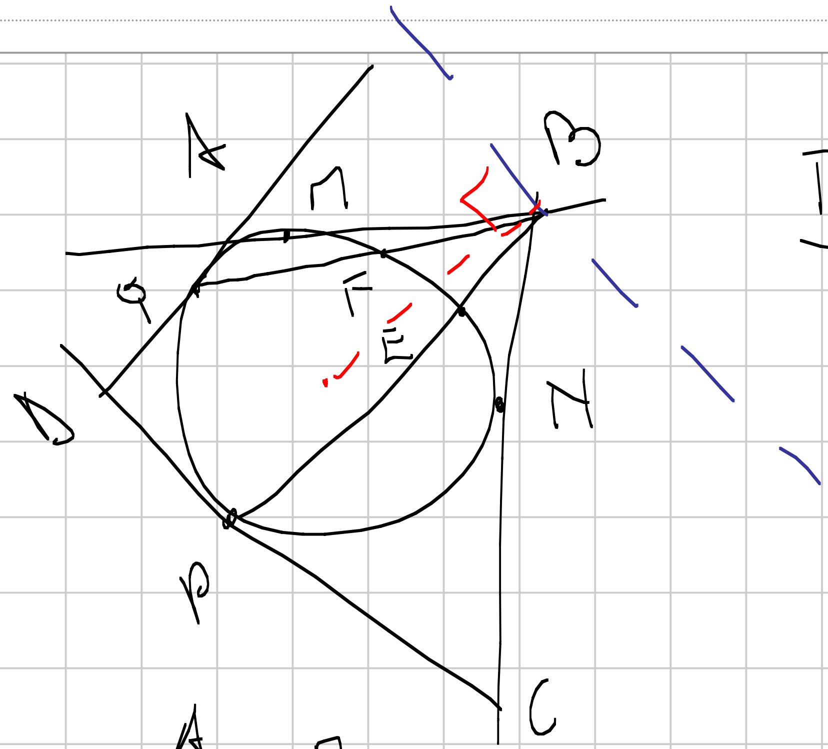
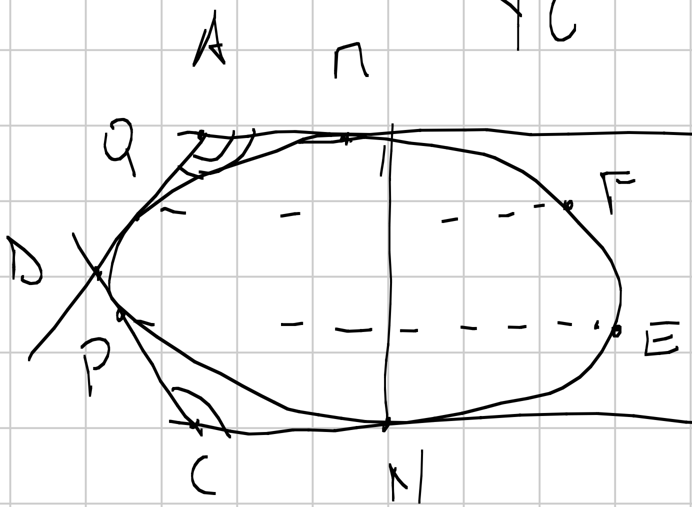
Titolo nota 26/01/2007



<u>Tesi</u>: MN, EF, AC, PQ
Concorrono

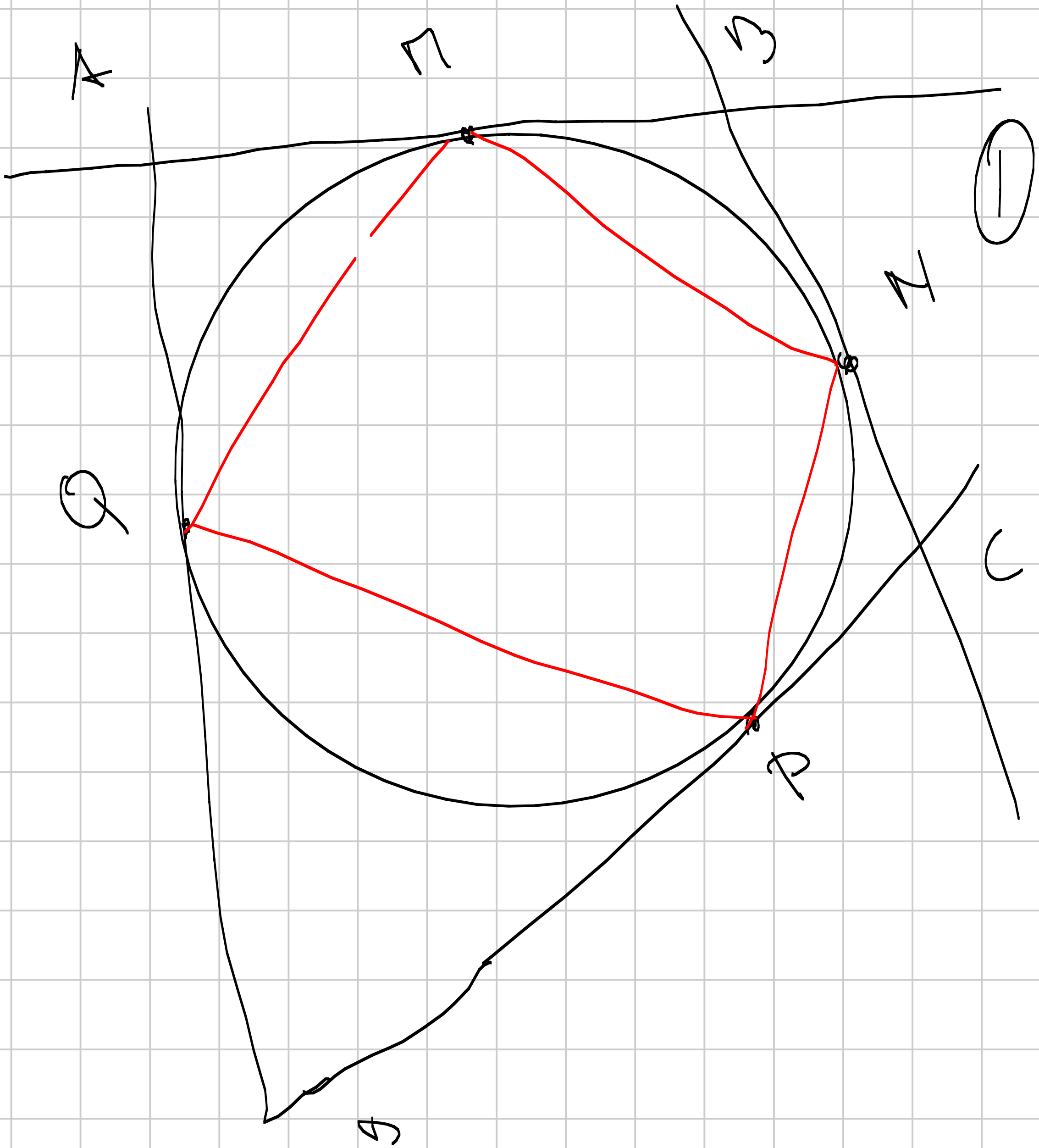
QF // PE

PEFQ Trap. isoscele



=> QP, MN, FE
Concorrono

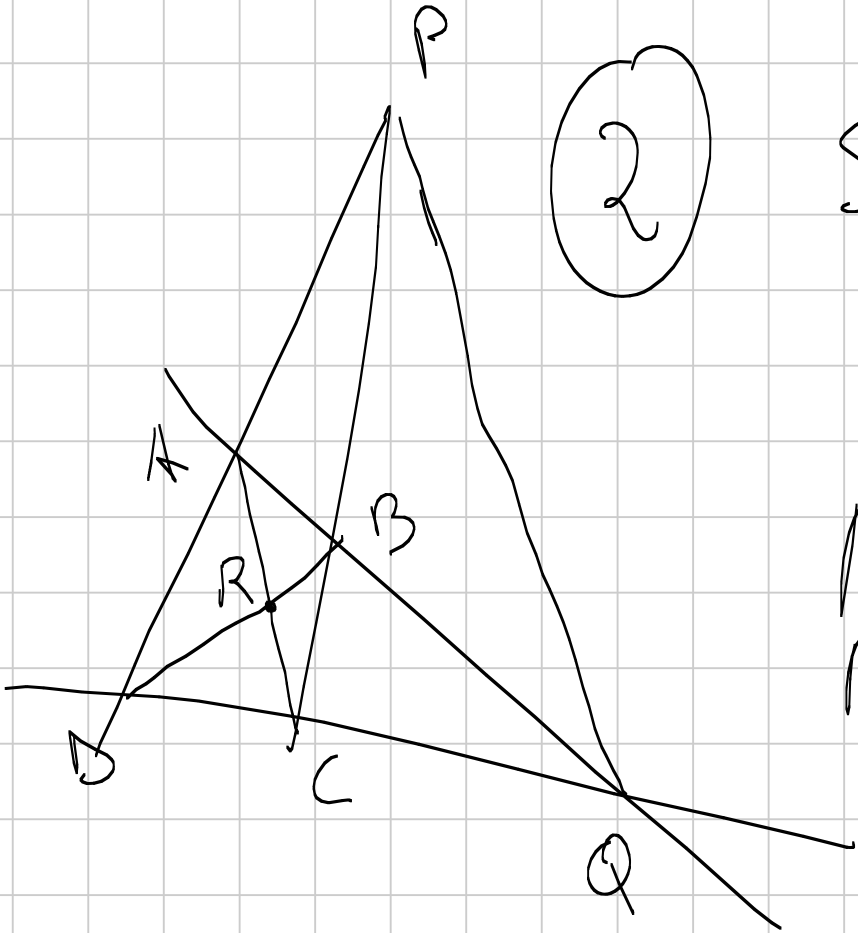
B ~>



① AC, BD, MP, NQ

concurrent.

2

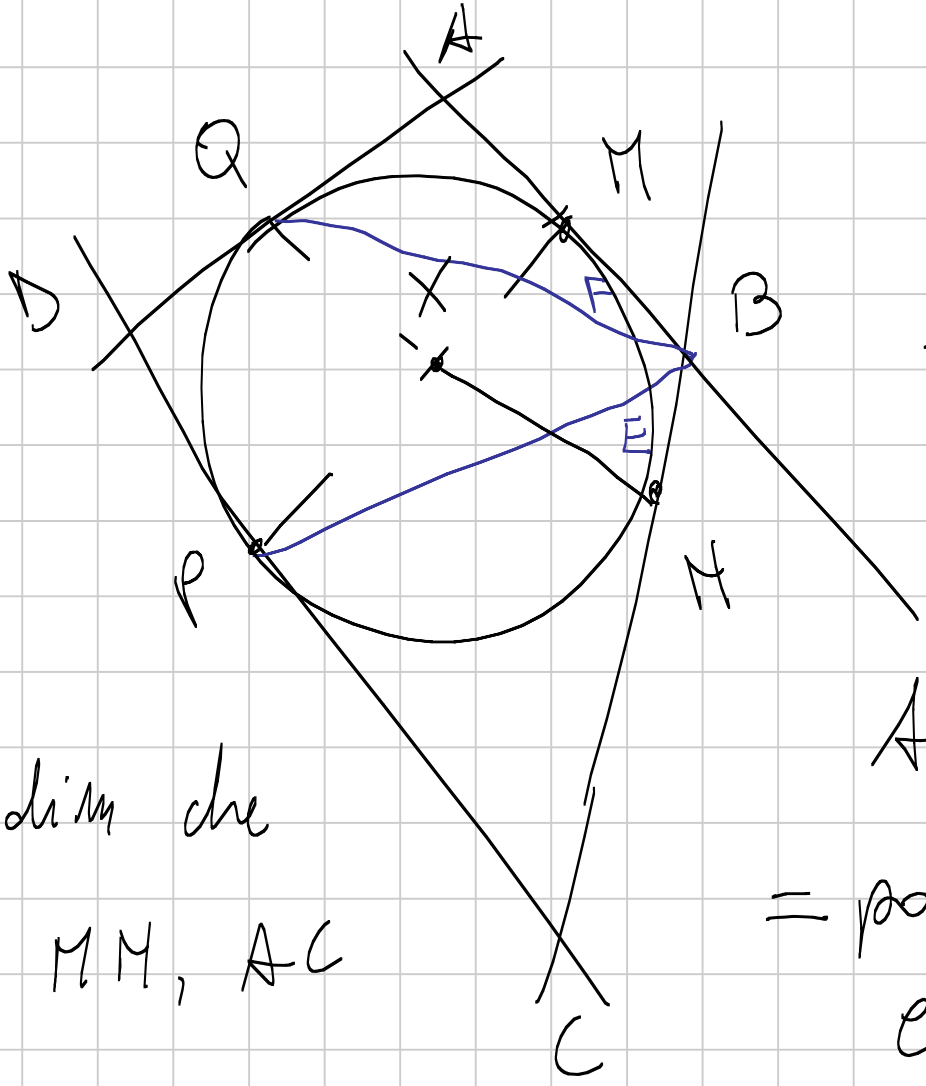


Se ABCD é ciclico con cfr. Γ

$\mathrm{pol}_\Gamma R = PQ$

$\mathrm{pol}_\Gamma P = RQ$

$\mathrm{pol}_\Gamma Q = RP$



$\mathrm{pol}\,X =$

$= \text{retta per } QP \cap MN$

$\text{e } QM \cap PN$

Voglio dim che

PQ, MN, AC

concorrono

$AC \cap \mathrm{pol}(X) =$

$=$ polo della retta per X

e $QM \cap PN =$

$=$ polo della polare di $QP \cap MN =$

$= QP \cap MN$.

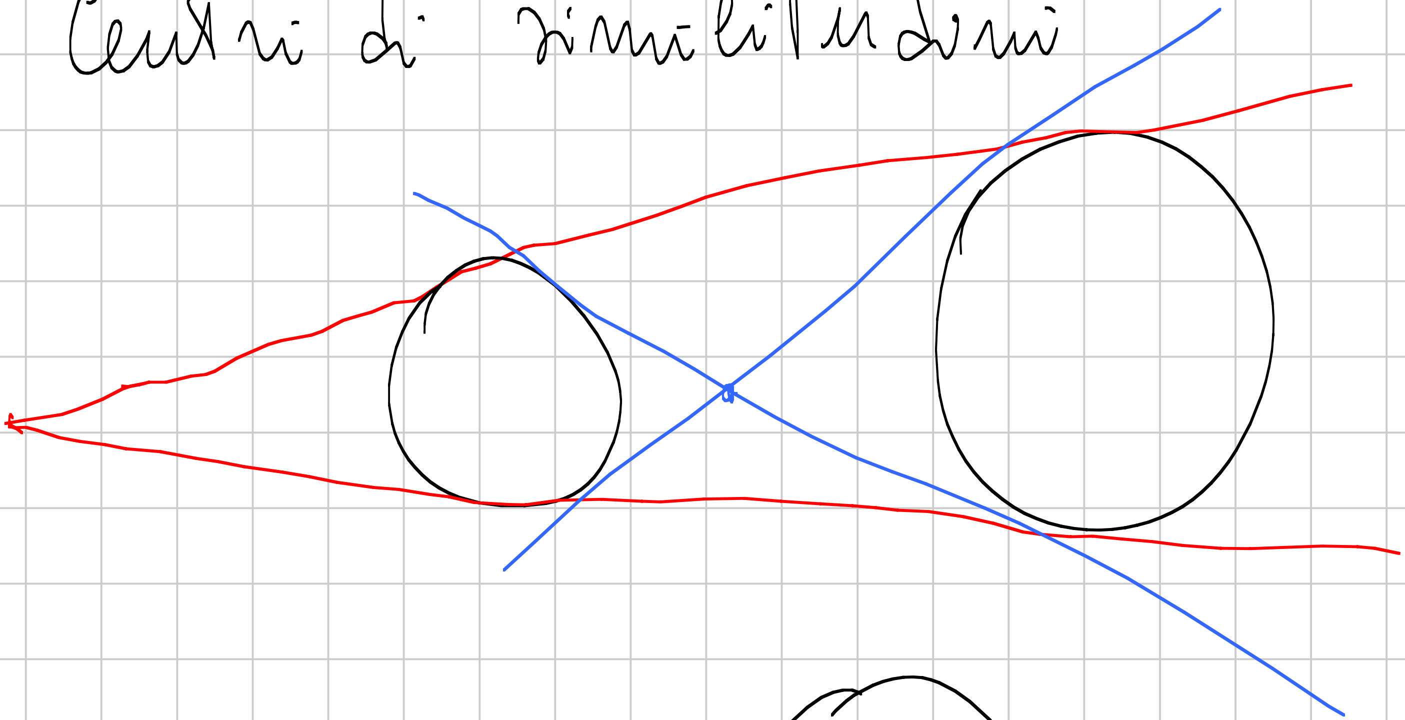
pol B = MN pol B = retta per

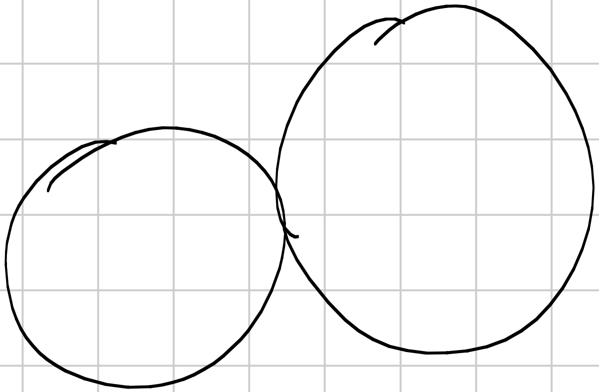
$QB \cap PF$

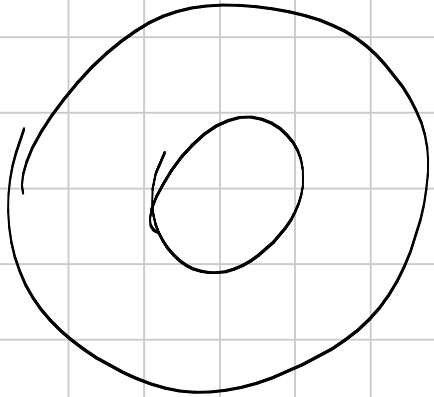
$\Rightarrow$ pol B passa per e $PQ \cap EF$

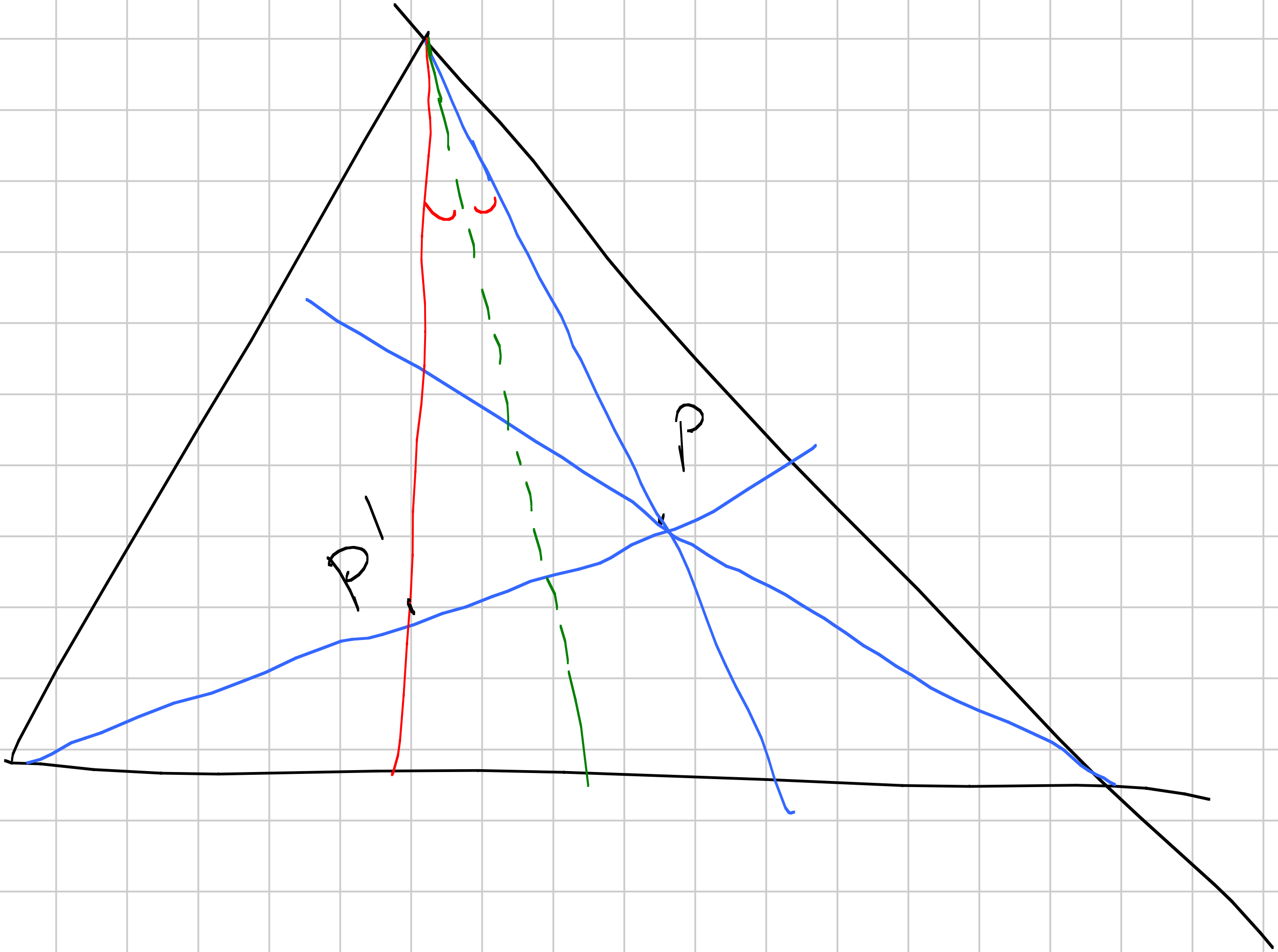
$PQ \cap EF$ $\Rightarrow$ MN, PQ, EF concorrono.

Centri di similitudine





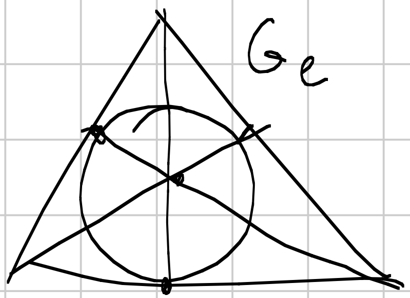


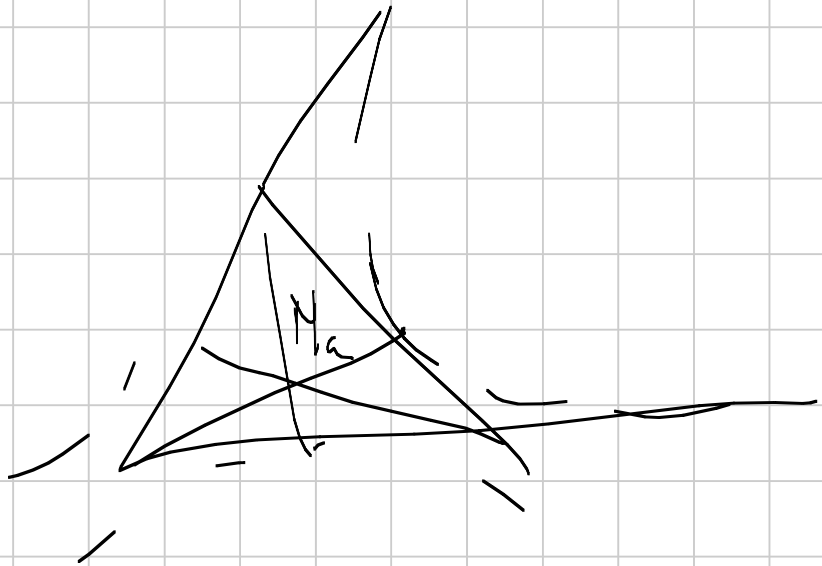

P'
P

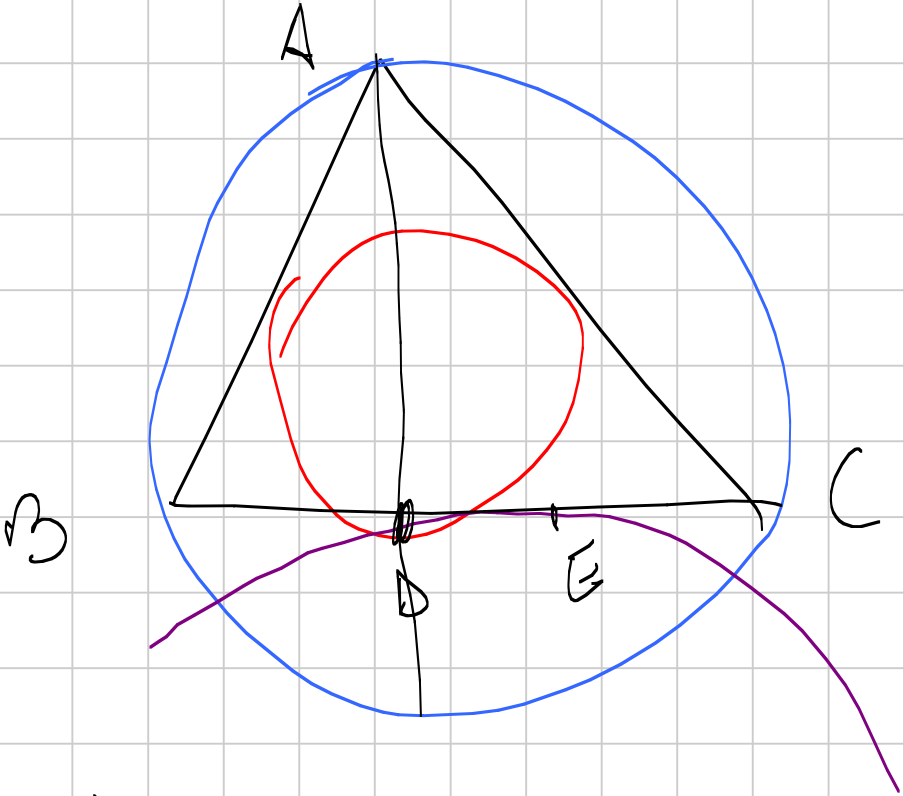
omot di centro A   omot di centro B

A centro di o. i. m. di Γ_1 e Γ_2
B " " " di Γ_2 e Γ_3 $\Rightarrow$ il c. d. o. di Γ_1 e Γ_3 sta su AB.

Gergonne e Nagel







Inversione di centro A

e raggio $\sqrt{AC \cdot AB}$

+

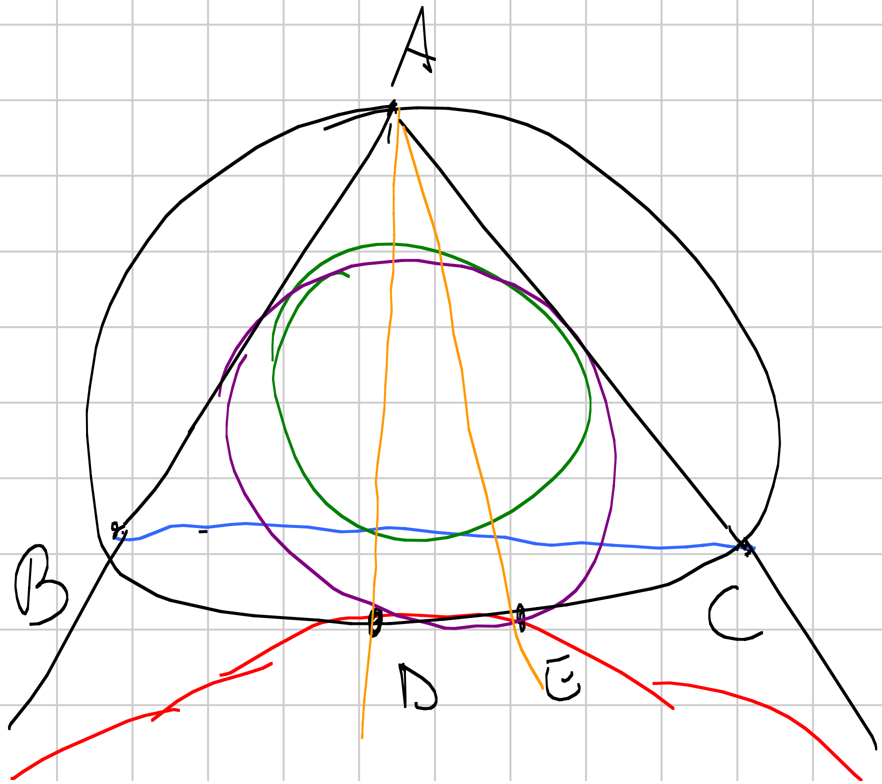
simm. risp. alla bisett. di A

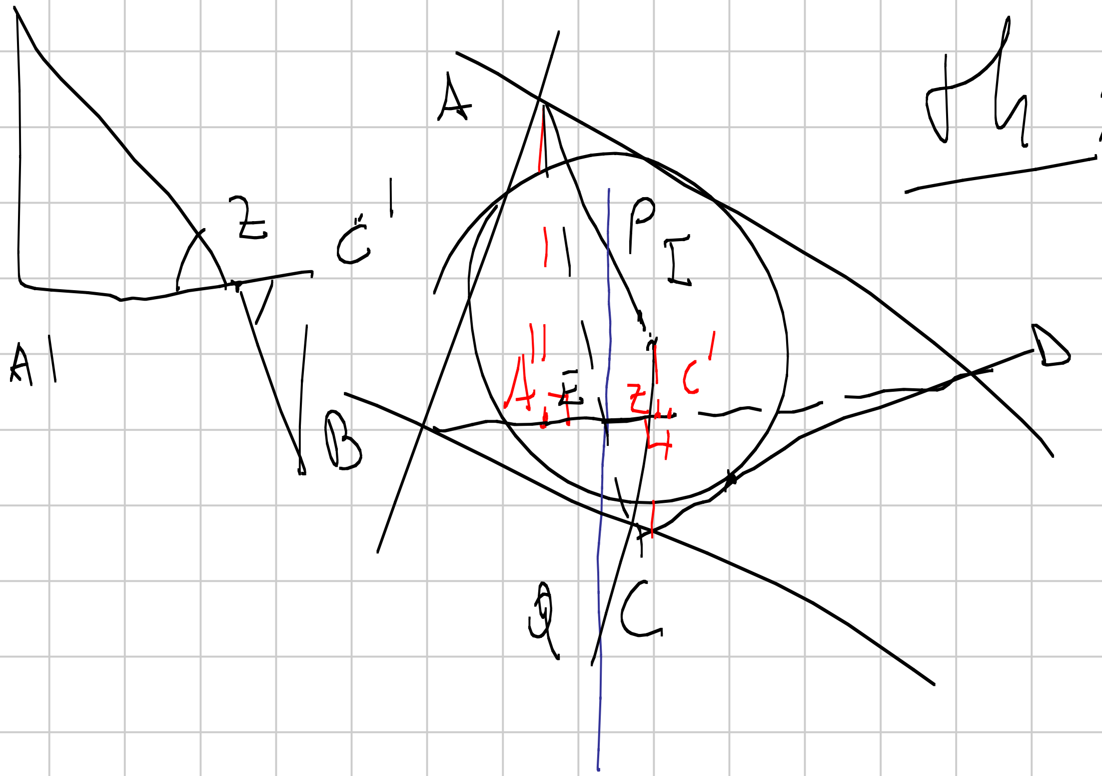
c.d.r. tra verde e nero

sta sulla retta data da

c.d.r. tra verde e rosso = A

c.d.r. tra rosso e nero = D





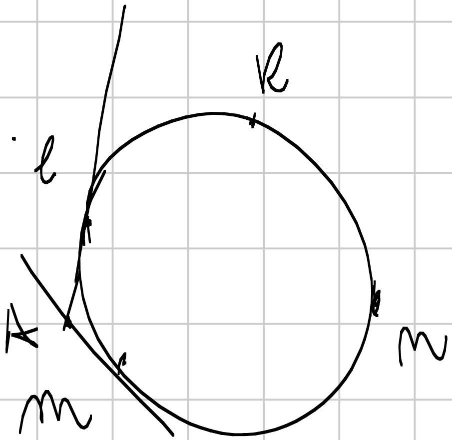
$\underline{H_1}$: $PE = EQ$

•) Menelao su $\overset{\Delta}{PQI}$ per la retta $\overline{AEC}$

$$\frac{PA}{AI}\cdot\frac{IC}{CQ}\cdot\frac{QE}{EP}=1$$

$$\underline{H_1} \iff \frac{PA}{AI}=\frac{CQ}{IC} \iff \frac{EA'}{A'Z}=\frac{C'E}{C'Z} \iff \frac{AA'}{CC'}=\frac{A'Z}{C'Z}$$

$$\iff AA'Z \sim CC'Z \iff B\hat{Z}A = D\hat{Z}C \,.$$



$$\frac{m+l}{2} \to \frac{1}{\frac{m+l}{2}} \to \frac{2}{m+l} =$$

$$= \frac{2ml}{m+l} \qquad \frac{2lk}{k+l} \qquad \frac{2km}{k+m}$$

$$z = \frac{mn - kl}{m+n-k-l}$$

$$\frac{2mn}{m+n}$$

$$\widehat{BZA} = \widehat{DZC}$$

$$\frac{b-z}{a-z} = \lambda \frac{c-z}{d-z} \qquad \lambda \in \mathbb{R}$$

$$\frac{(b-z)(d-z)}{(a-z)(c-z)} \in \mathbb{R}$$

$$\|w\| = 1 \qquad \overline{w} = \frac{1}{w}$$