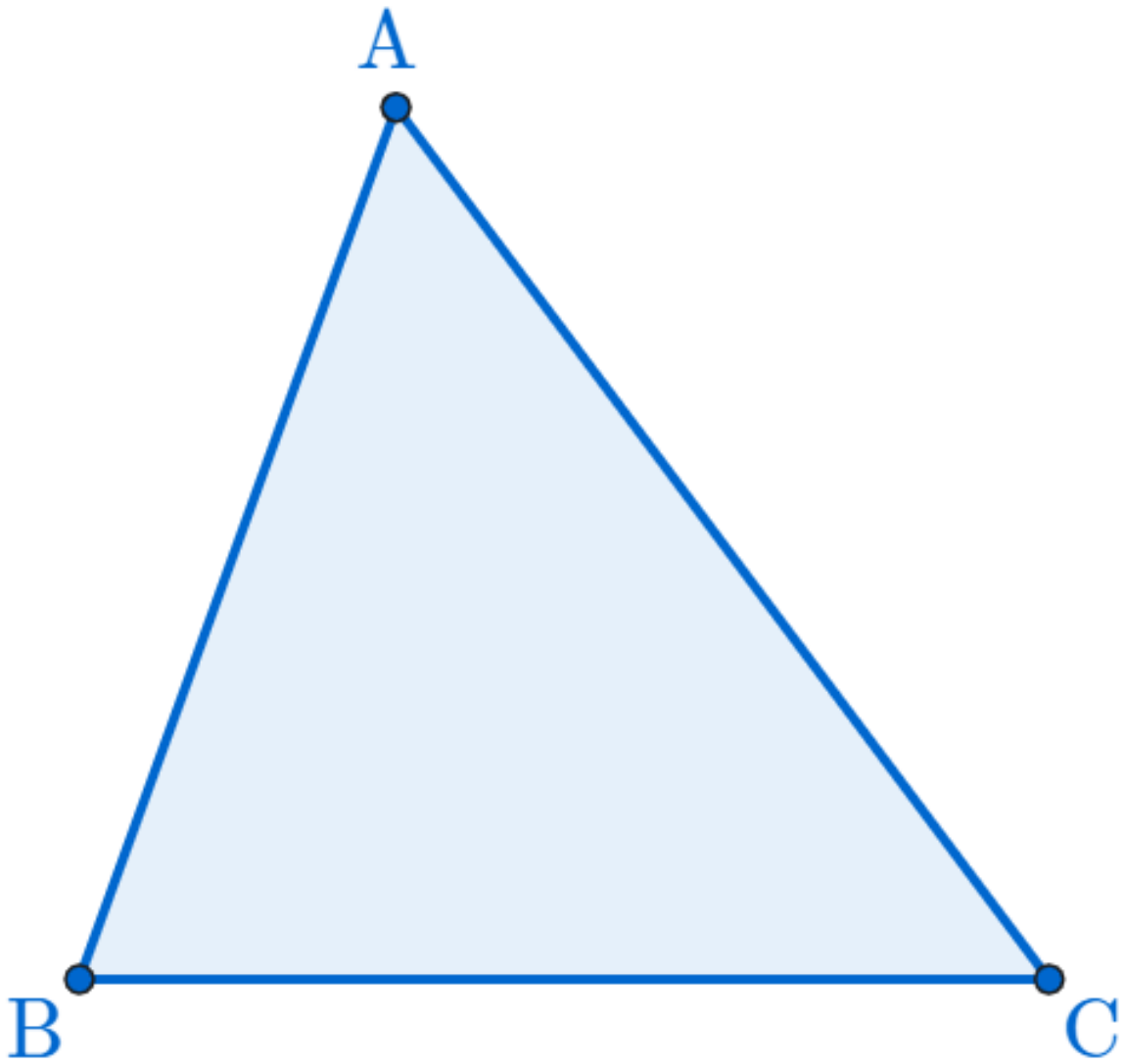
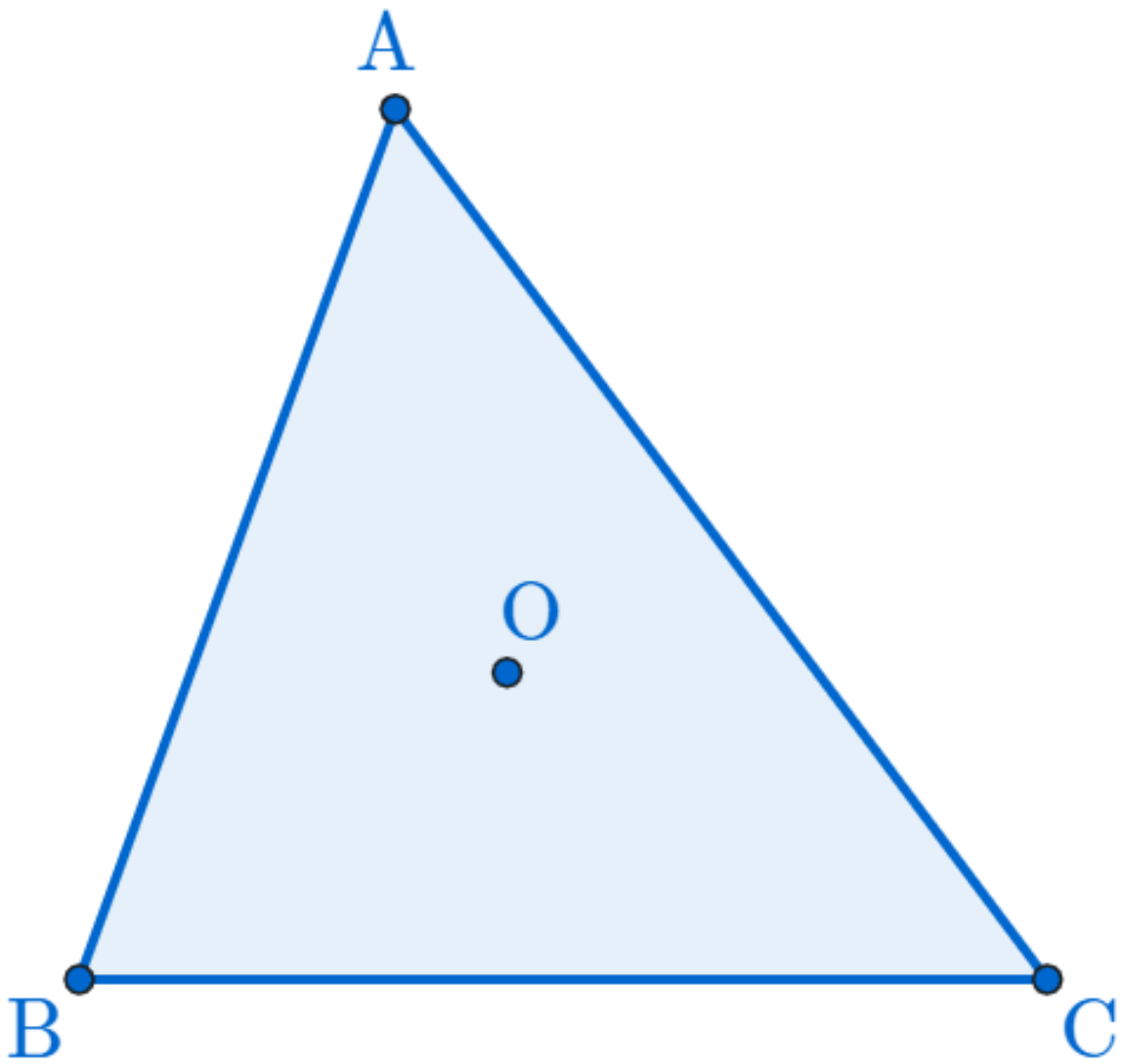
게르곤느의 정리
(Gergonne's Theorem)


A
B
C


A
O
B
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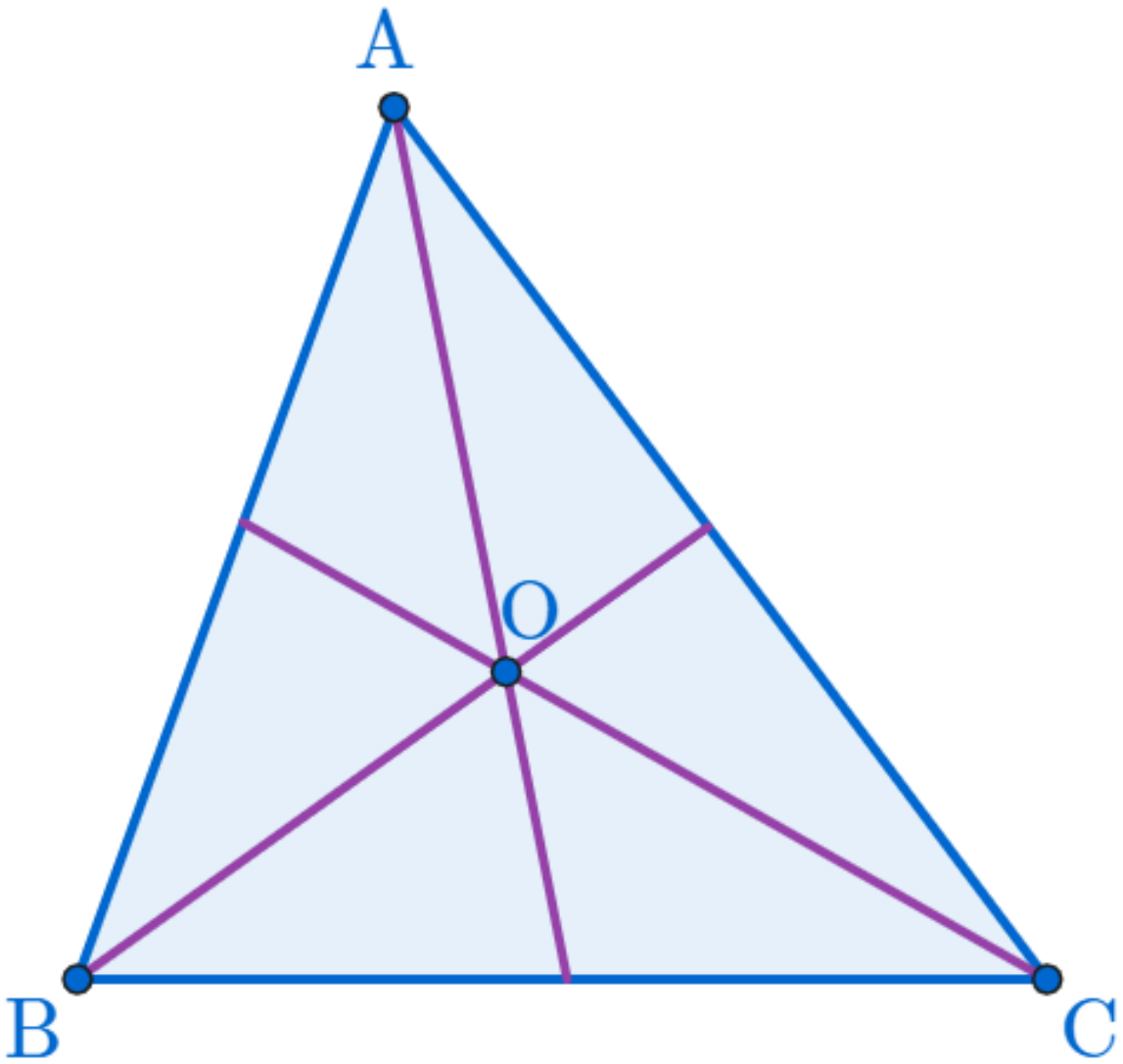
A
O
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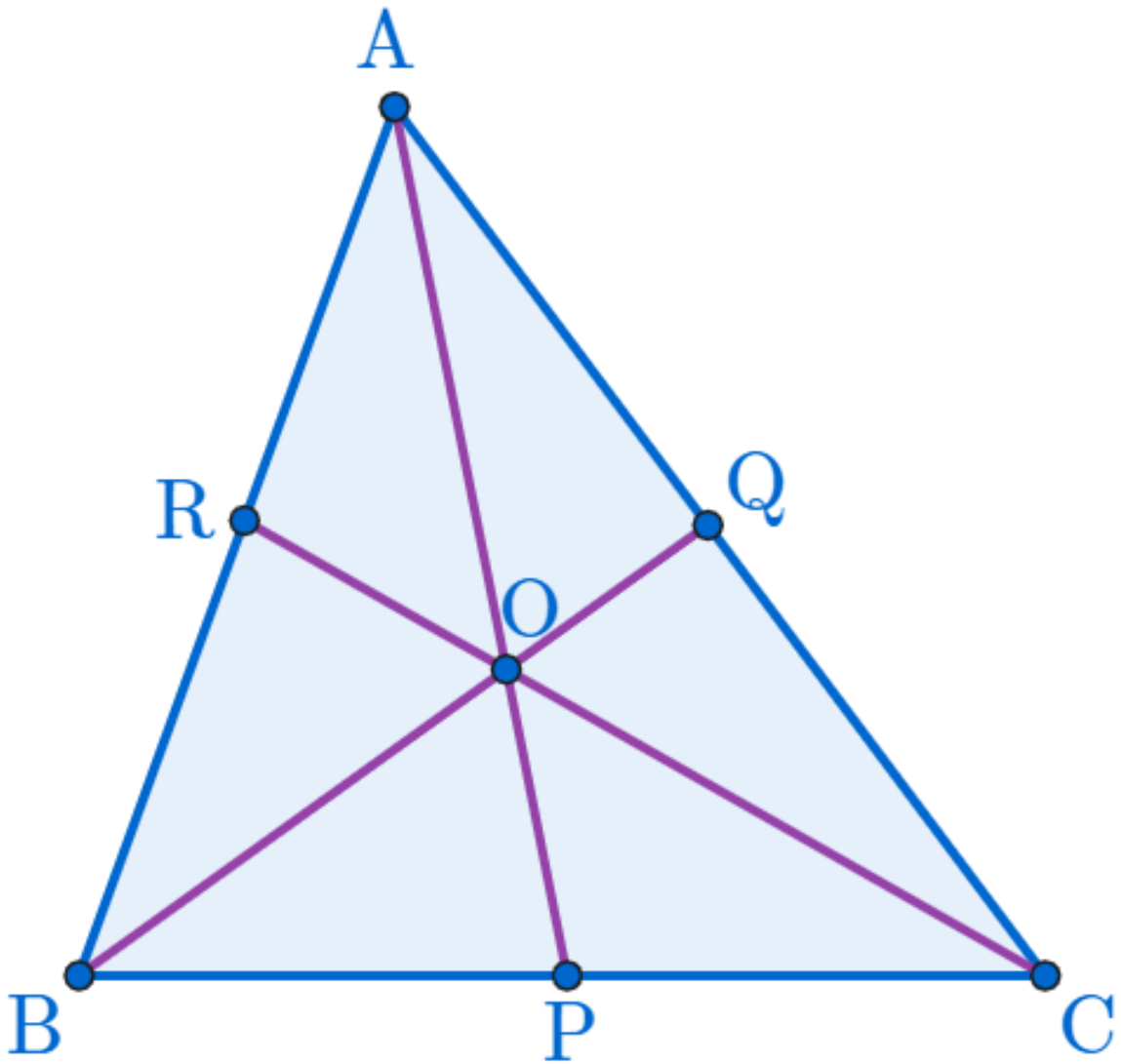
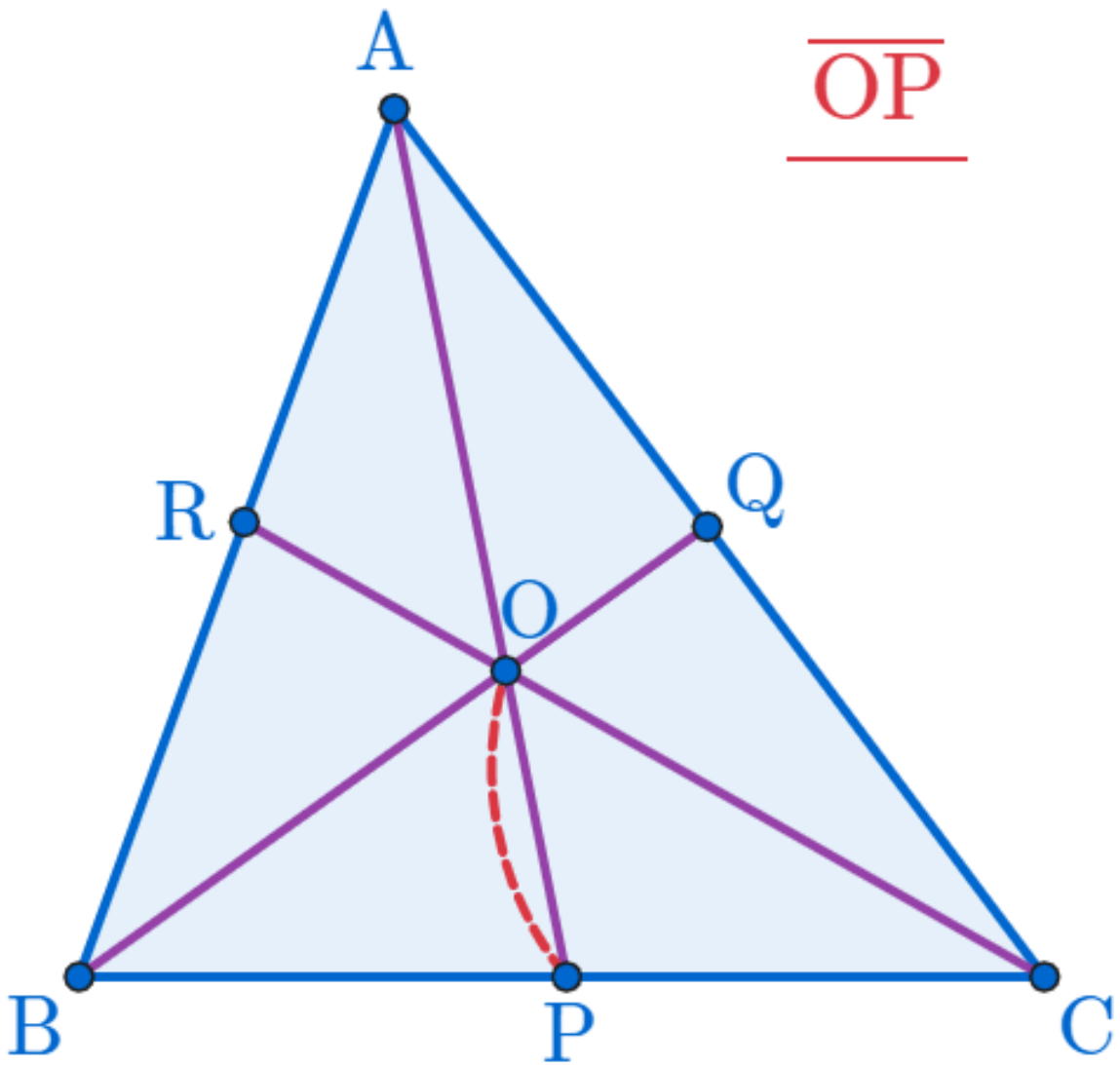
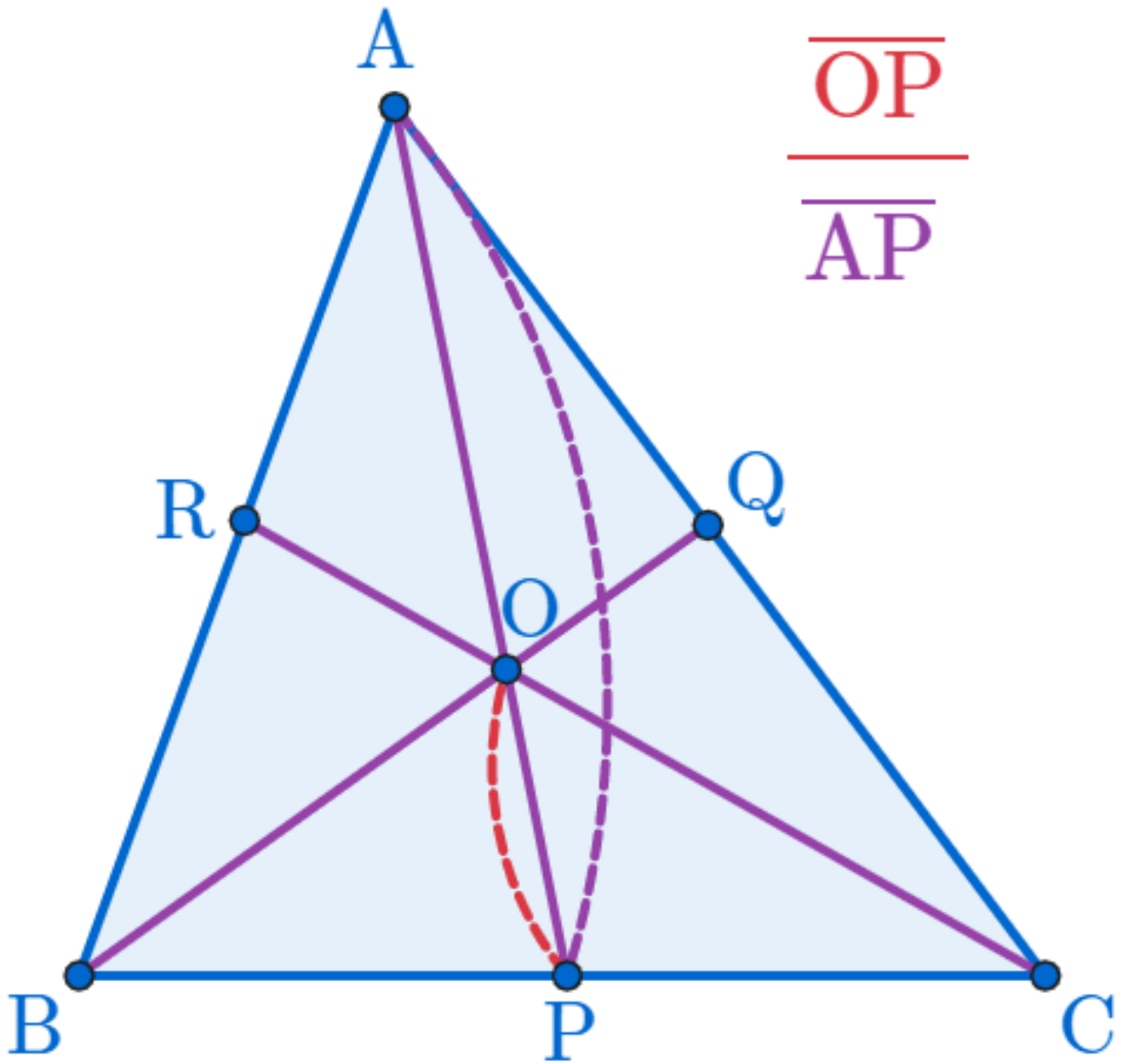
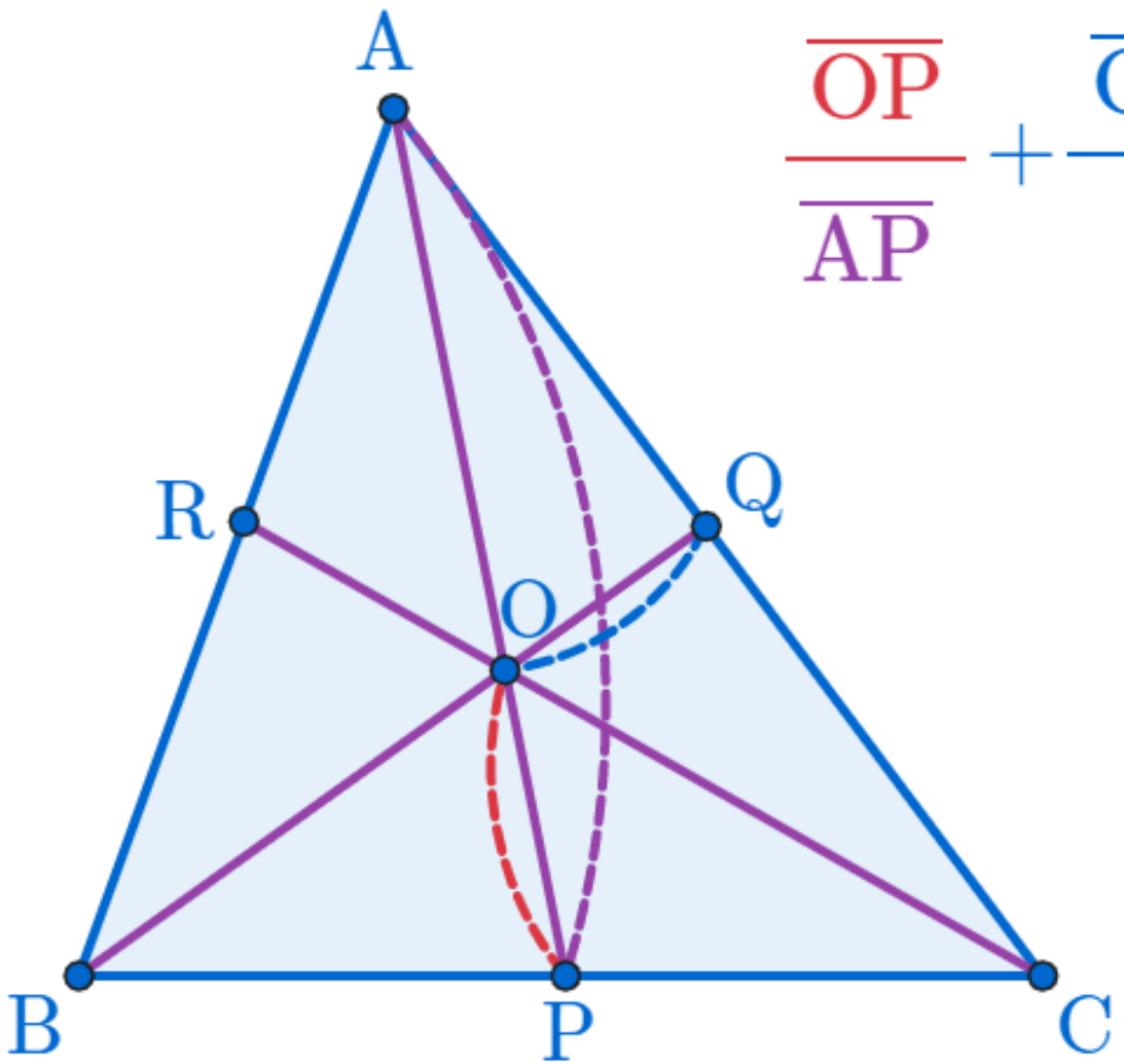

A
R
Q
O
B
P
C



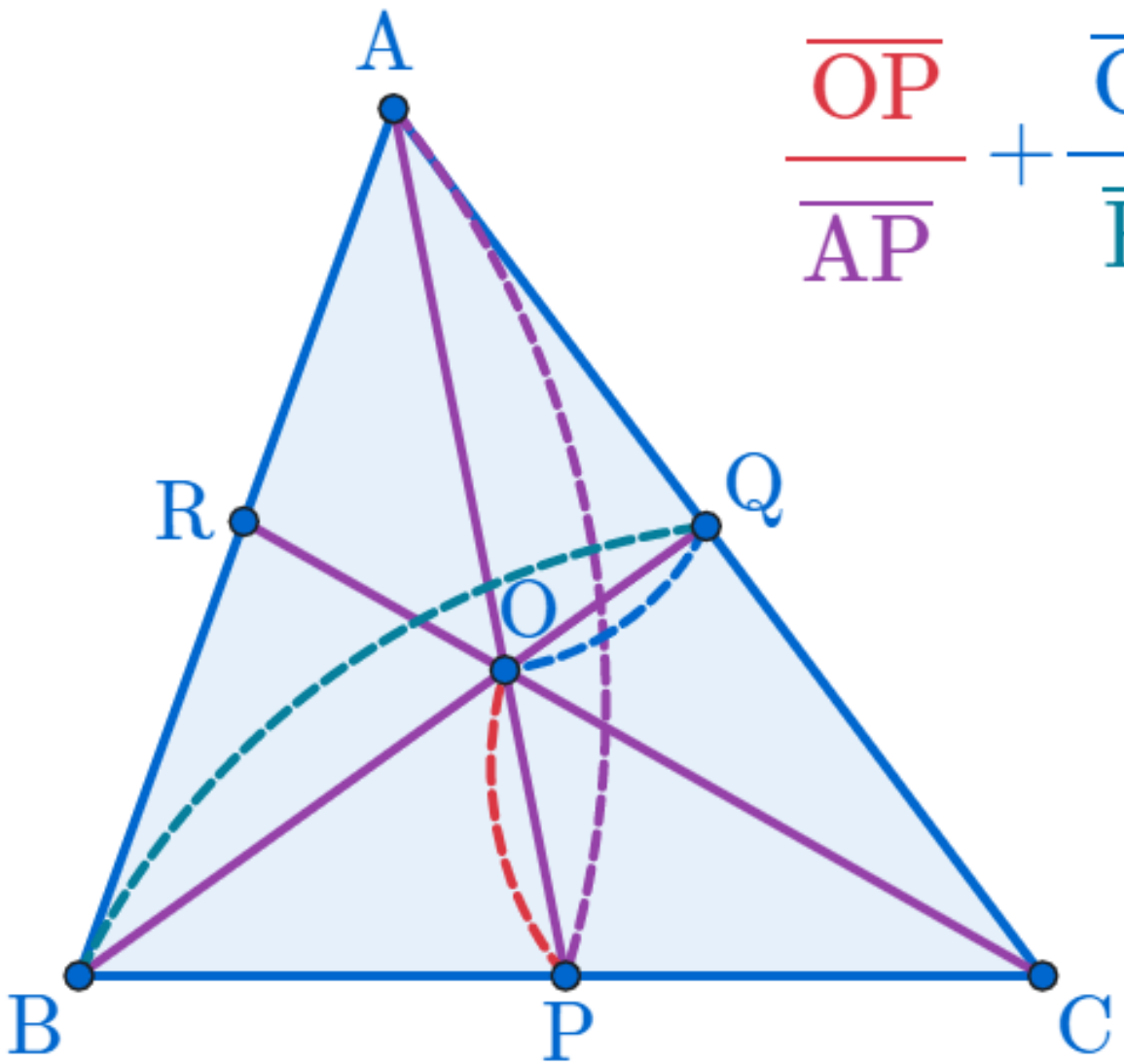
$\overline{OP}$



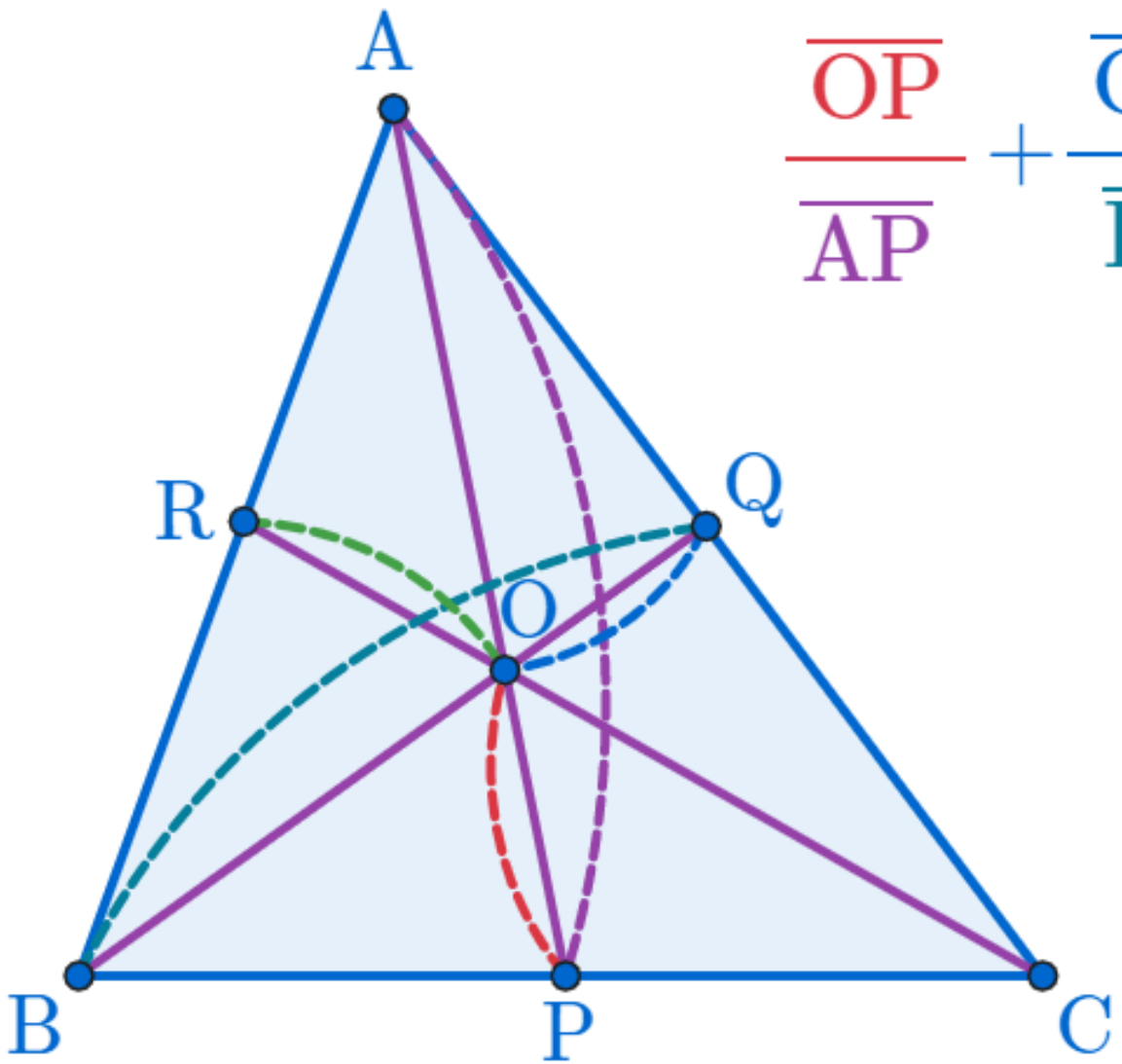
$$\frac{\overline{OP}}{\overline{AP}}$$



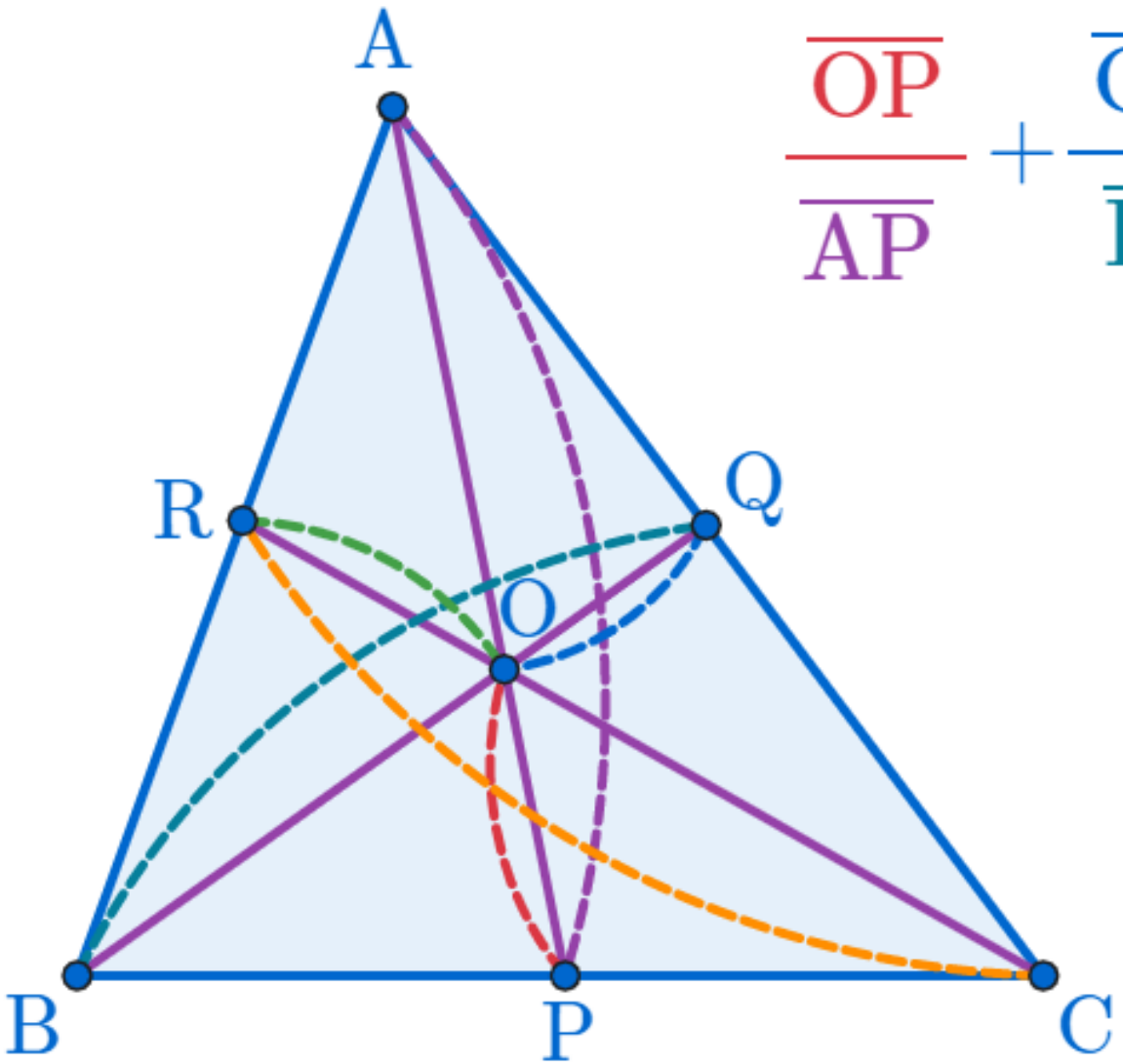
$$\frac{\overline{OP}}{\overline{AP}} + \frac{\overline{OQ}}{\quad}$$



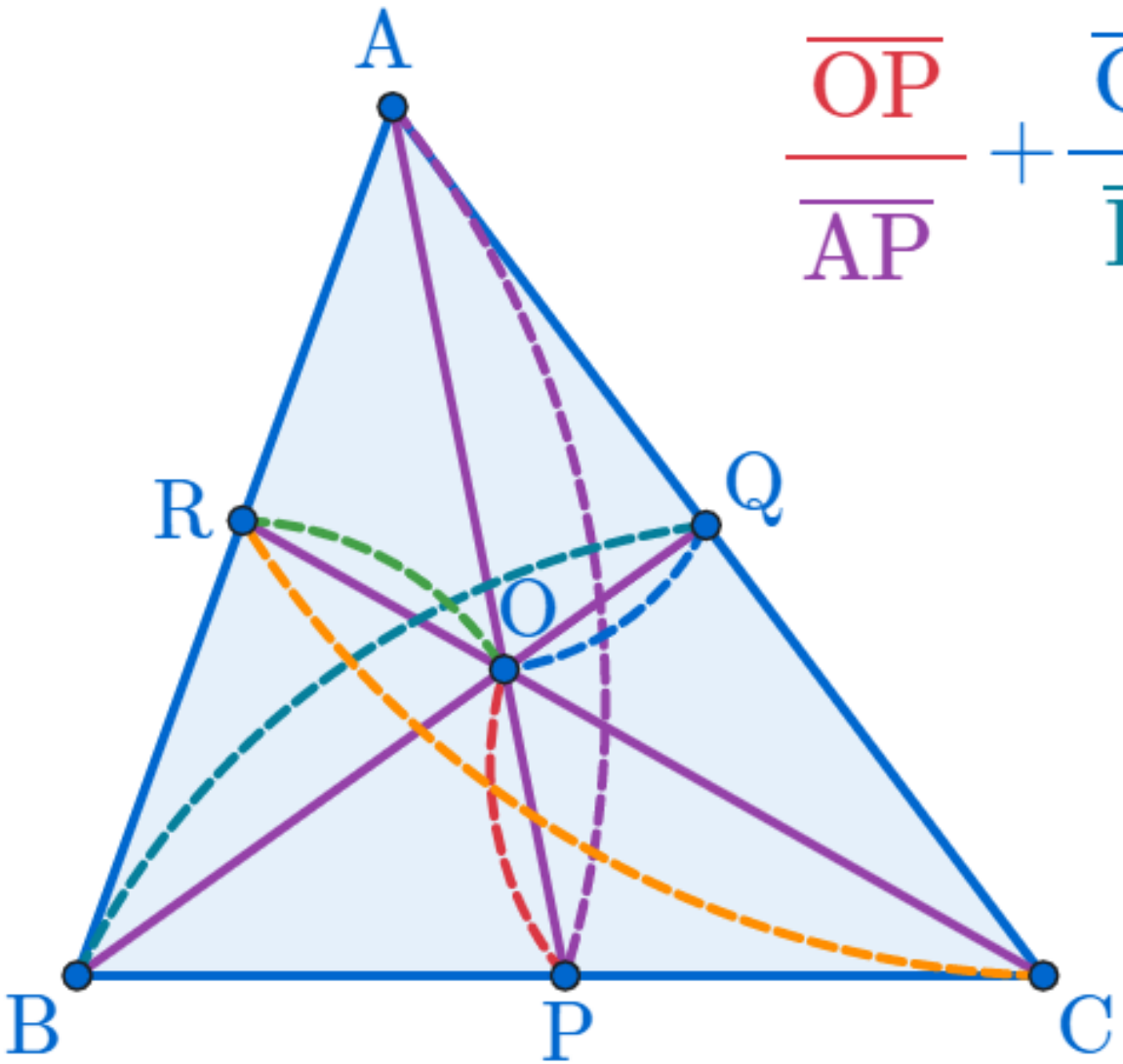
$$\frac{\overline{OP}}{\overline{AP}} + \frac{\overline{OQ}}{\overline{BQ}}$$



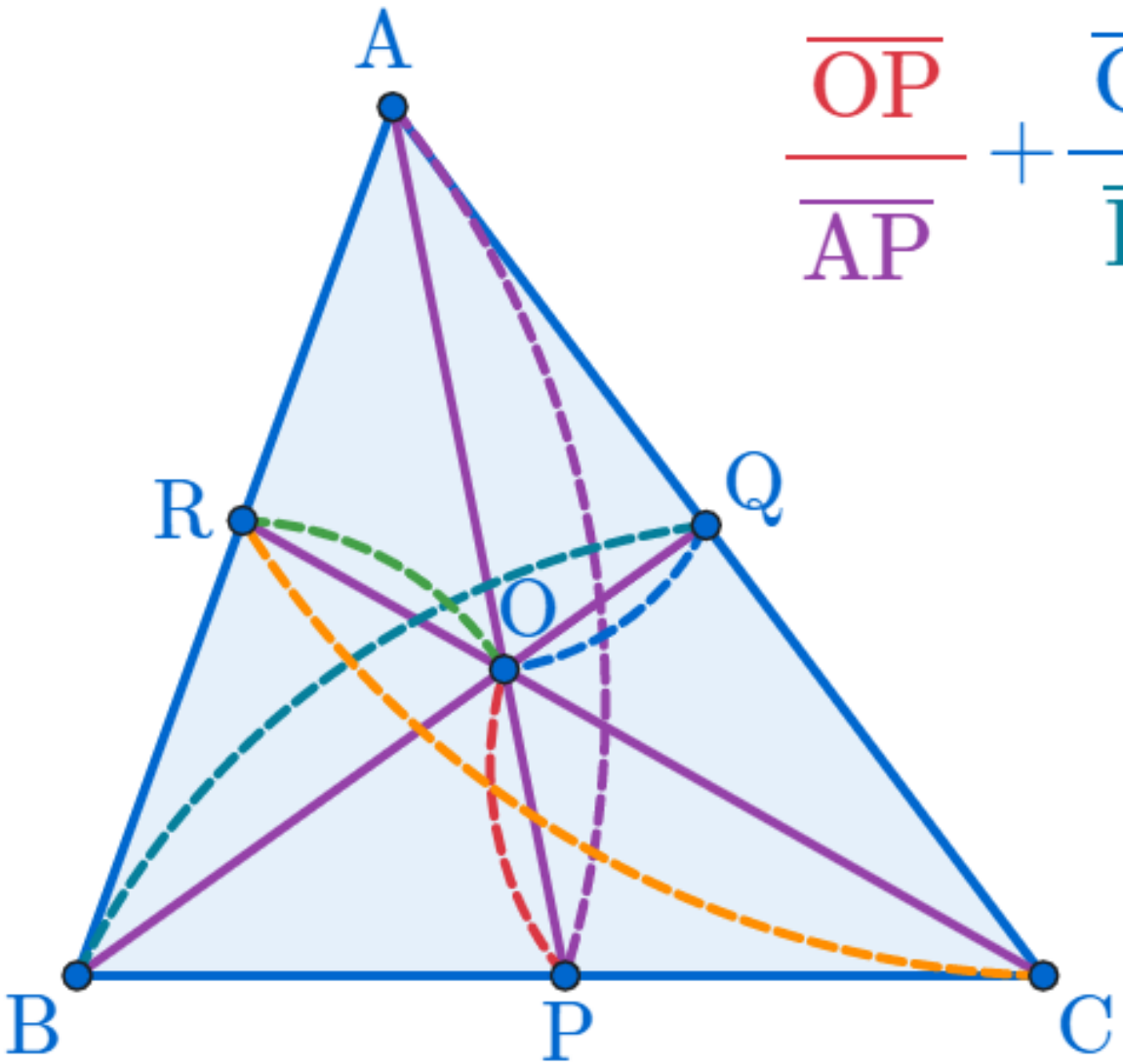
$$\frac{\overline{OP}}{\overline{AP}} + \frac{\overline{OQ}}{\overline{BQ}} + \frac{\overline{OR}}{\quad}$$



$$\frac{\overline{OP}}{\overline{AP}} + \frac{\overline{OQ}}{\overline{BQ}} + \frac{\overline{OR}}{\overline{CR}}$$

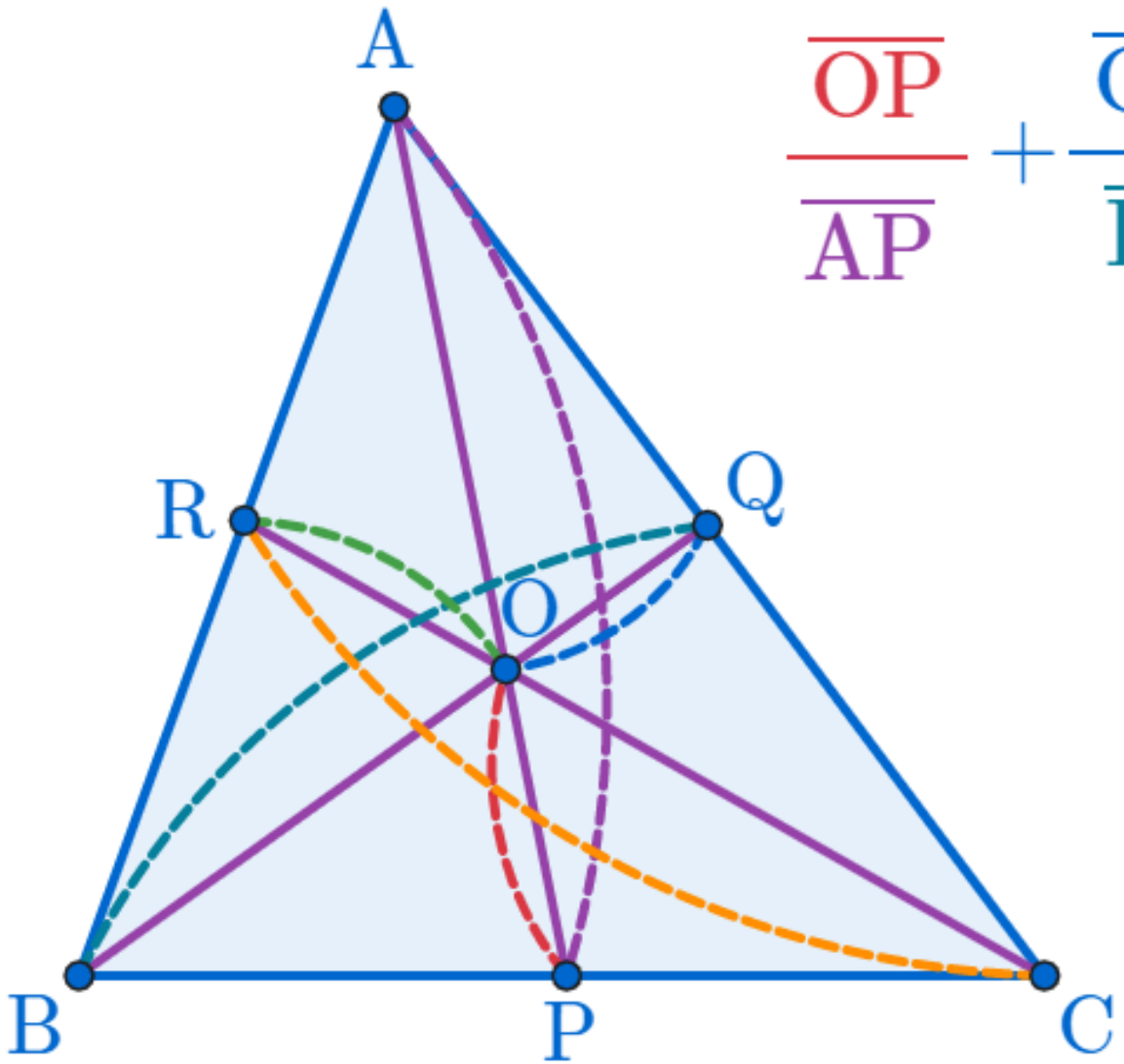


$$\frac{\overline{OP}}{\overline{AP}} + \frac{\overline{OQ}}{\overline{BQ}} + \frac{\overline{OR}}{\overline{CR}} = 1$$



$$\frac{\overline{OP}}{\overline{AP}} + \frac{\overline{OQ}}{\overline{BQ}} + \frac{\overline{OR}}{\overline{CR}} = 1$$

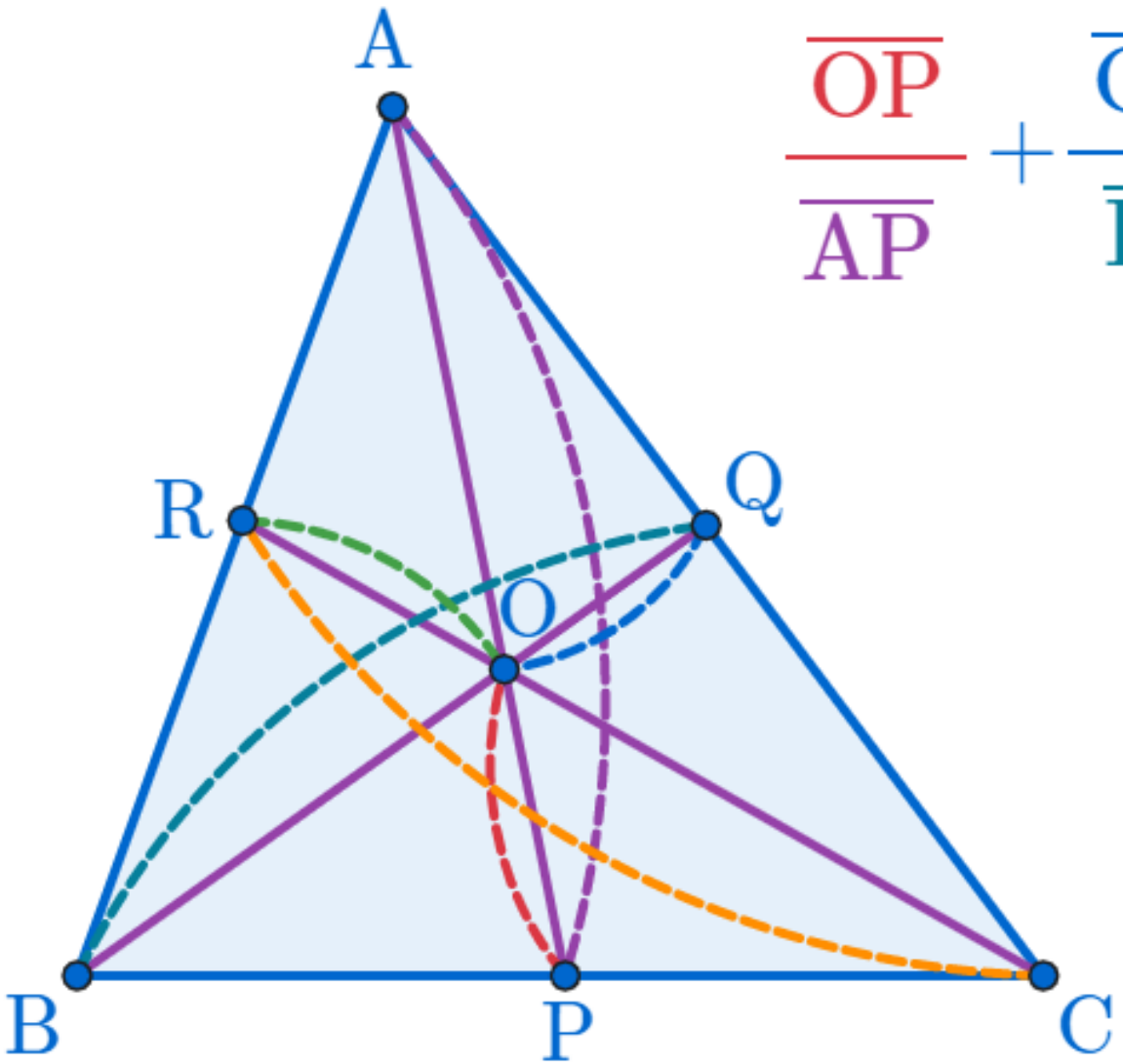
$$\frac{\overline{OP}}{\overline{AP}} = \frac{\Delta OBC}{\Delta ABC}$$



$$\frac{\overline{OP}}{\overline{AP}} + \frac{\overline{OQ}}{\overline{BQ}} + \frac{\overline{OR}}{\overline{CR}} = 1$$

$$\frac{\overline{OP}}{\overline{AP}} = \frac{\Delta OBC}{\Delta ABC}$$

$$\frac{\overline{OQ}}{\overline{BQ}} = \frac{\Delta OCA}{\Delta BCA}$$



$$\frac{\overline{OP}}{\overline{AP}} + \frac{\overline{OQ}}{\overline{BQ}} + \frac{\overline{OR}}{\overline{CR}} = 1$$

$$\frac{\overline{OP}}{\overline{AP}} = \frac{\Delta OBC}{\Delta ABC}$$

$$\frac{\overline{OQ}}{\overline{BQ}} = \frac{\Delta OCA}{\Delta BCA}$$

$$\frac{\overline{OR}}{\overline{CR}} = \frac{\Delta OAB}{\Delta CAB}$$

Github:
https://min7014.github.io/math20200306001.html

Click or paste URL into the URL search bar, and you can see a picture moving.