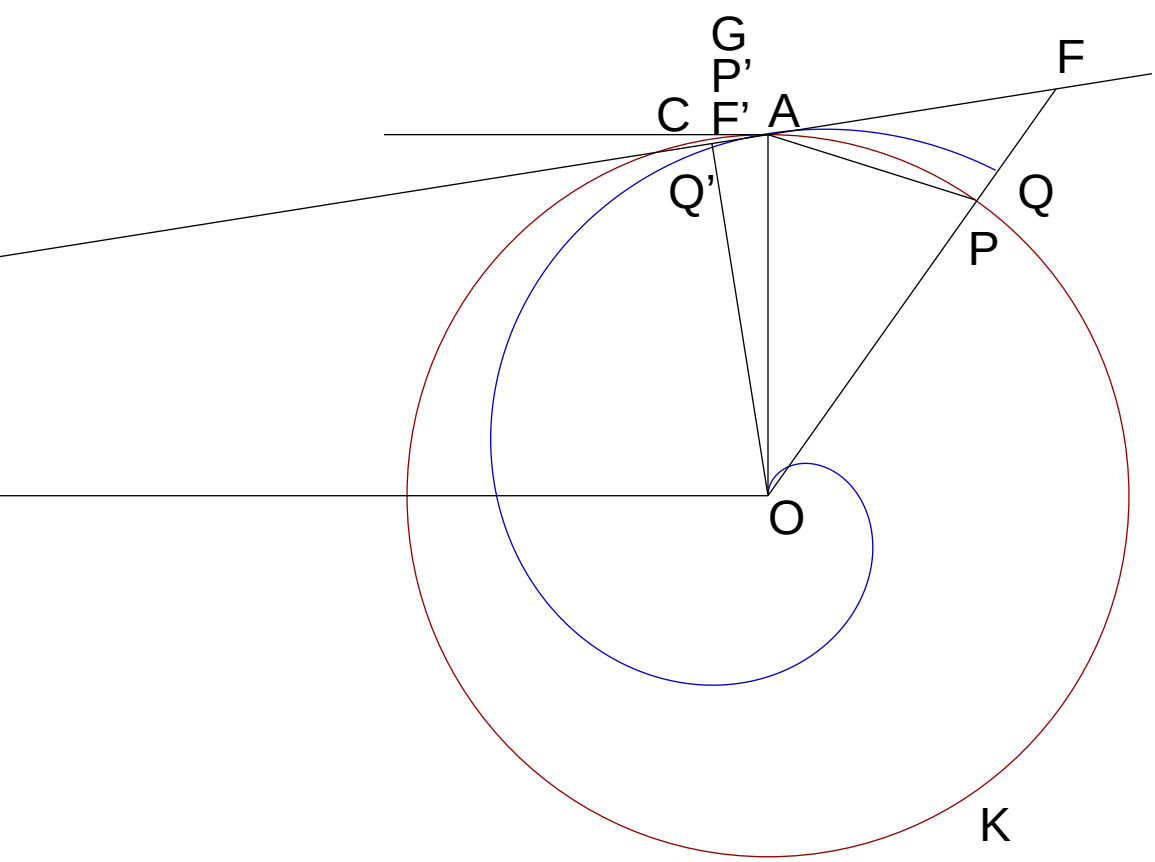
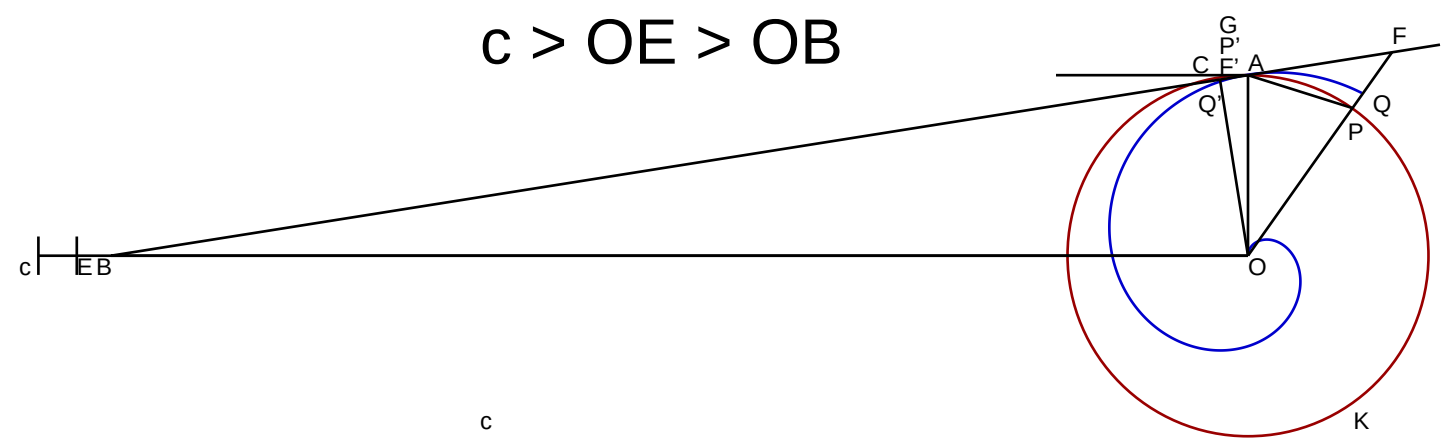

G
P’
F
C
F’
A
Q’
Q
P
O
K

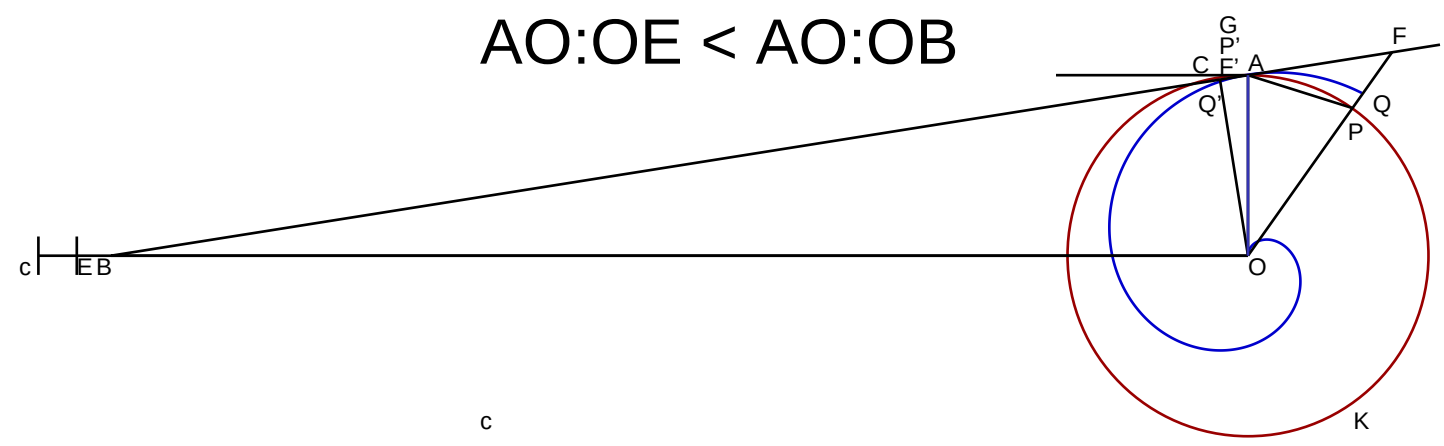
Suppose c>OB

Choose E such that

c > OE > OB

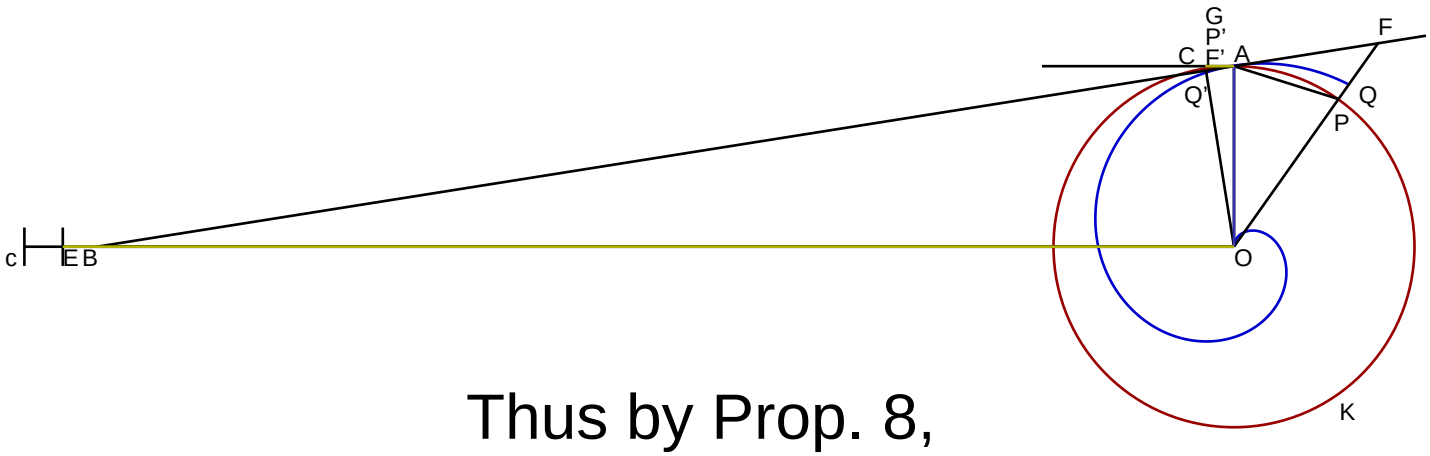


AO:OE < AO:OB



Since triangles AOB and AF’O are similar,

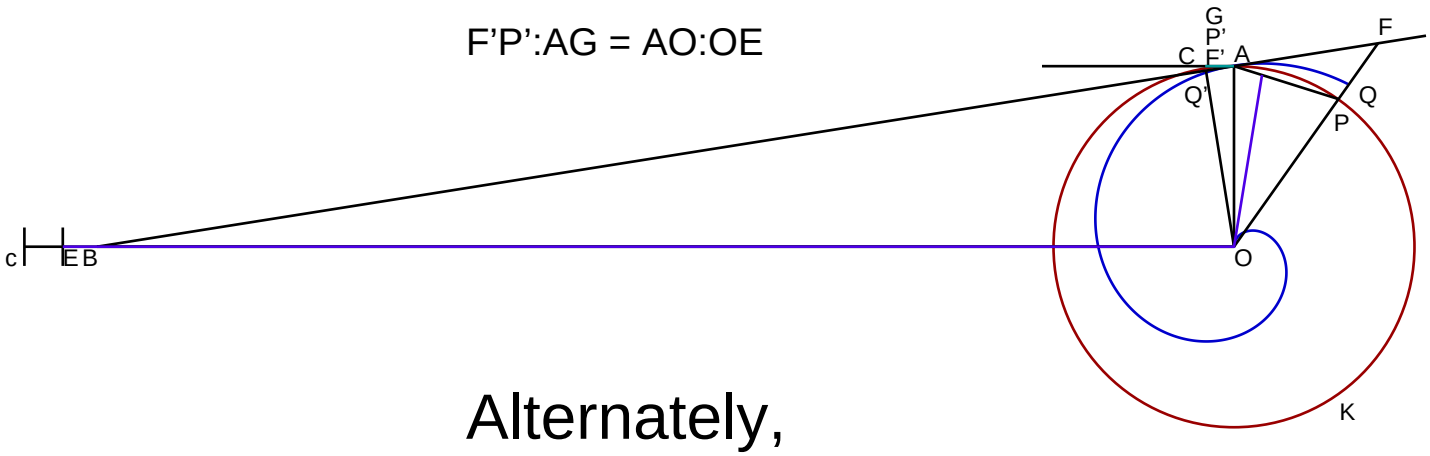
and AO:OE < AO:OB, we get AO:OE < F’A:AO



Thus by Prop. 8,

F’P’:AG = AO:OE

F’P’:AG = AO:OE

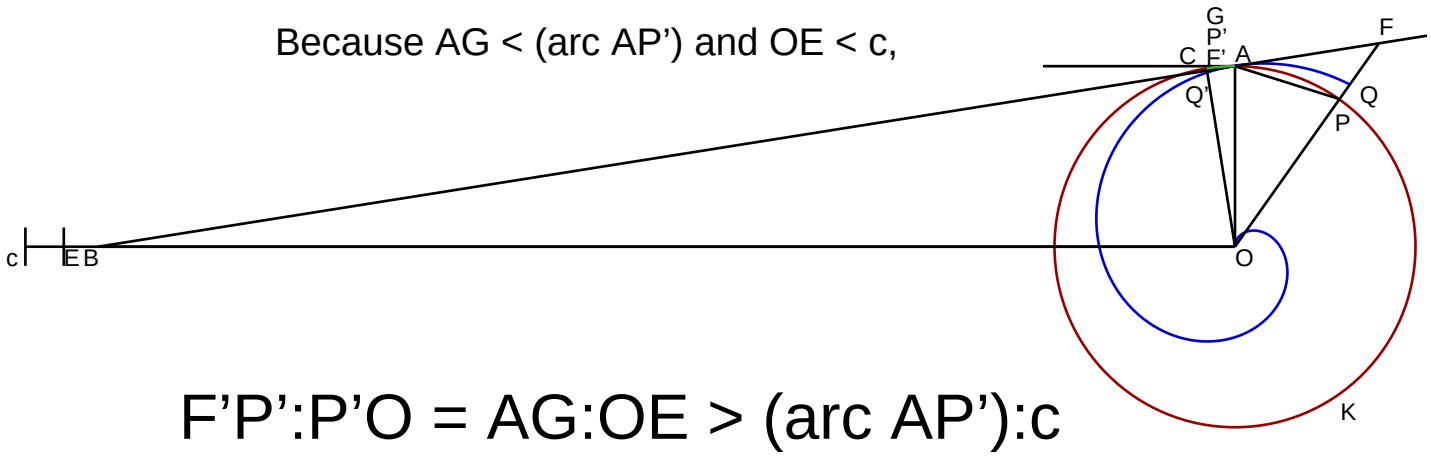


Alternately,

F’P’:P’O = AG:OE

F’P’:P’O = AG:OE

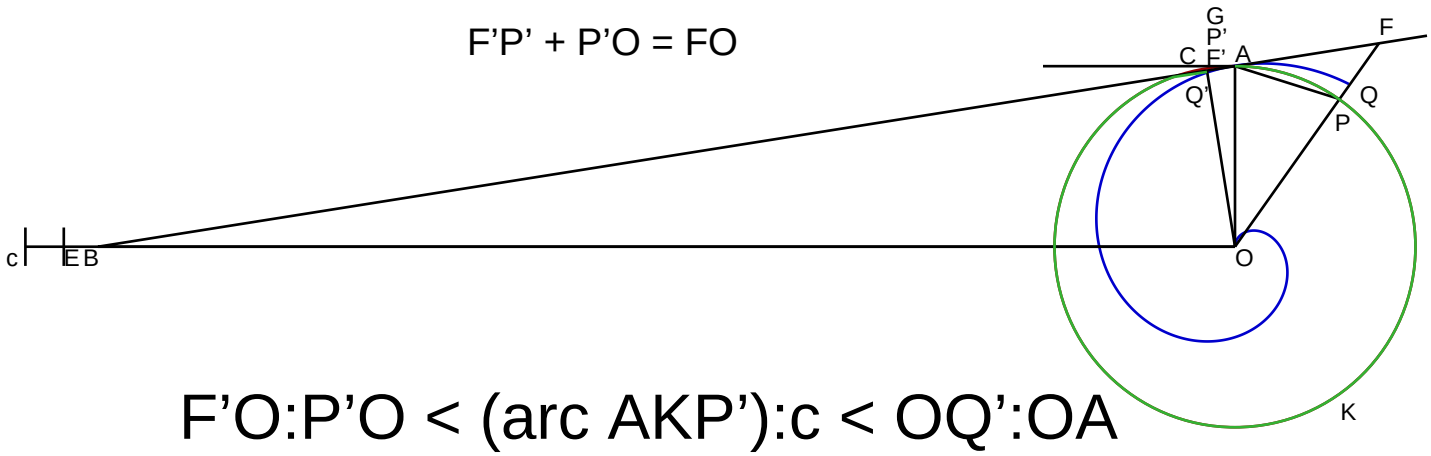
Because AG < (arc AP’) and OE < c,



F’P’:P’O = AG:OE > (arc AP’):c

F’P’:P’O = AG:OE > (arc AP’):c

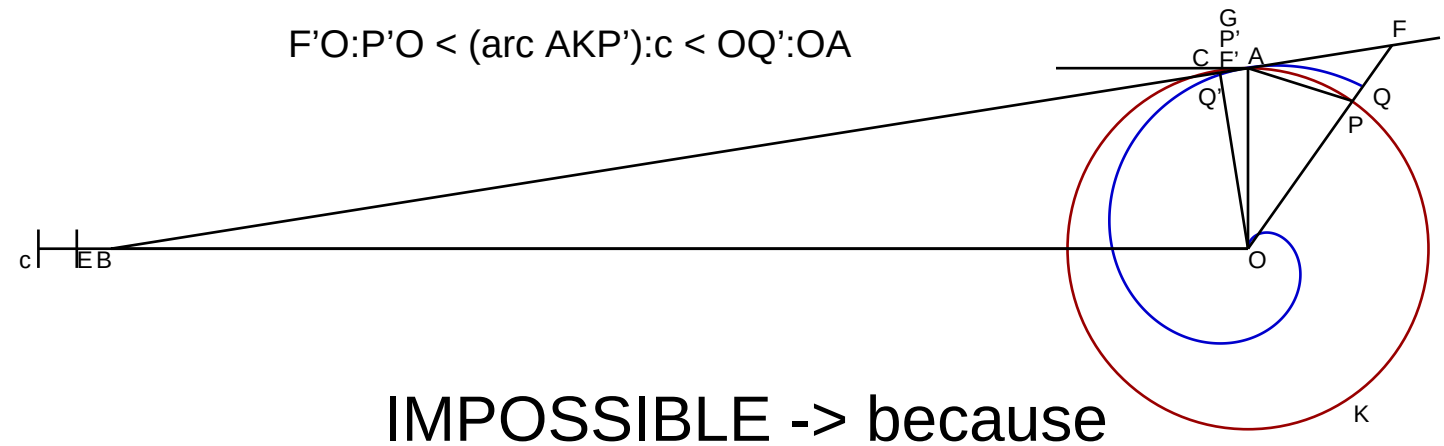
F’P’ + P’O = FO



F’O:P’O < (arc AKP’):c < OQ’:OA

by Prop.14

F’O:P’O < (arc AKP’):c < OQ’:OA



IMPOSSIBLE -> because

OA = OP’ and OQ’ < OF’

Therefore, OB NOT < c