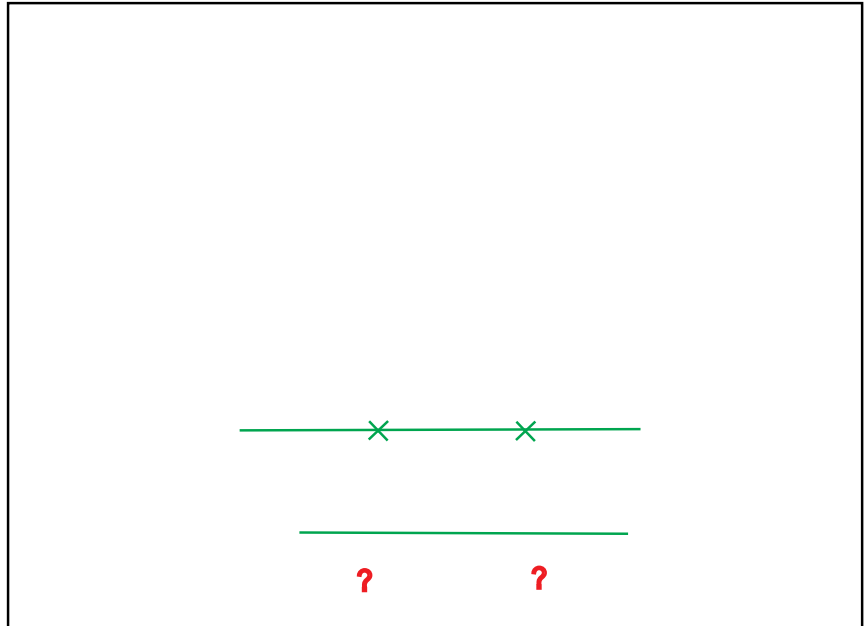
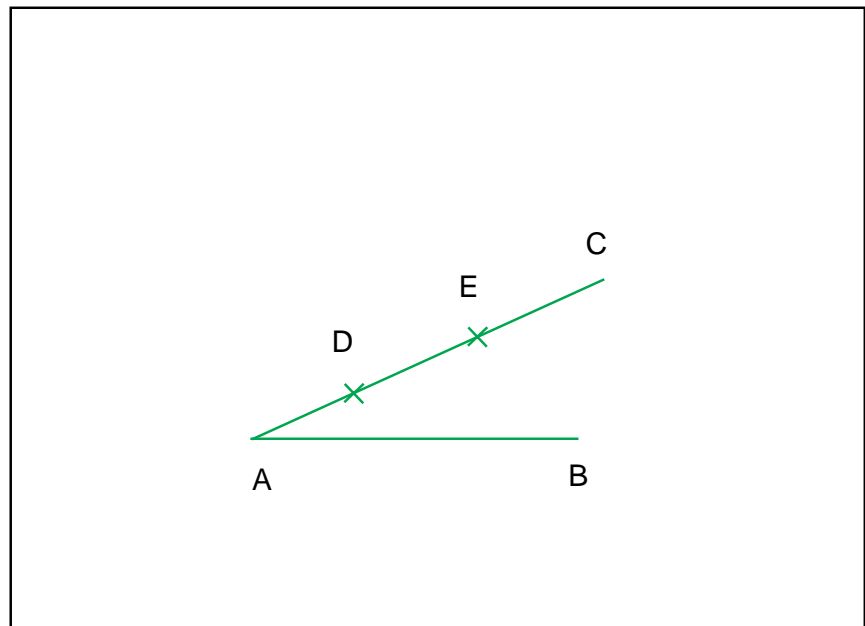

Construction 40: Book VI, Proposition 10

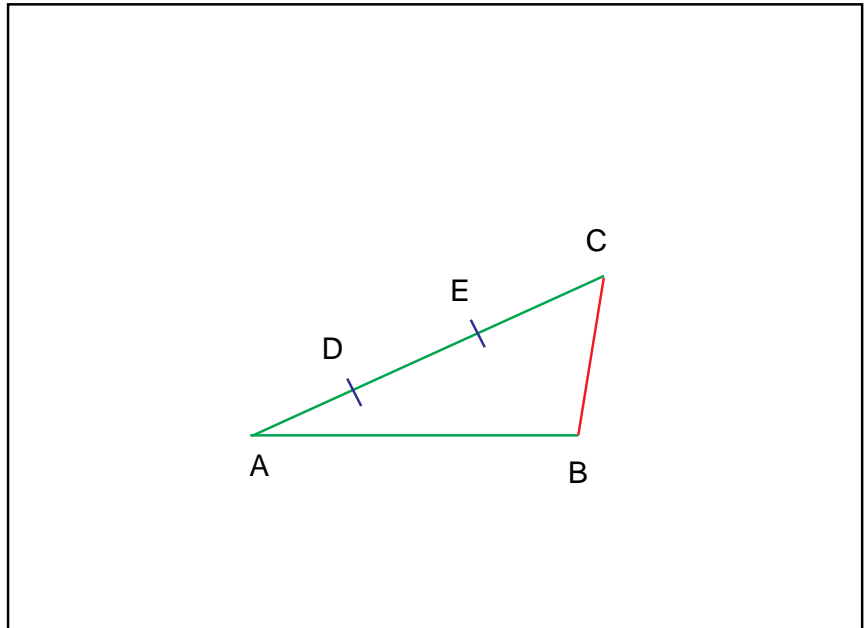
To cut a given uncut straight line similarly to a given cut straight line.



VI.10:3. Let AB be the given uncut straight line, and AC the straight line cut at the points D , E ; and let them be so placed as to contain any angle;



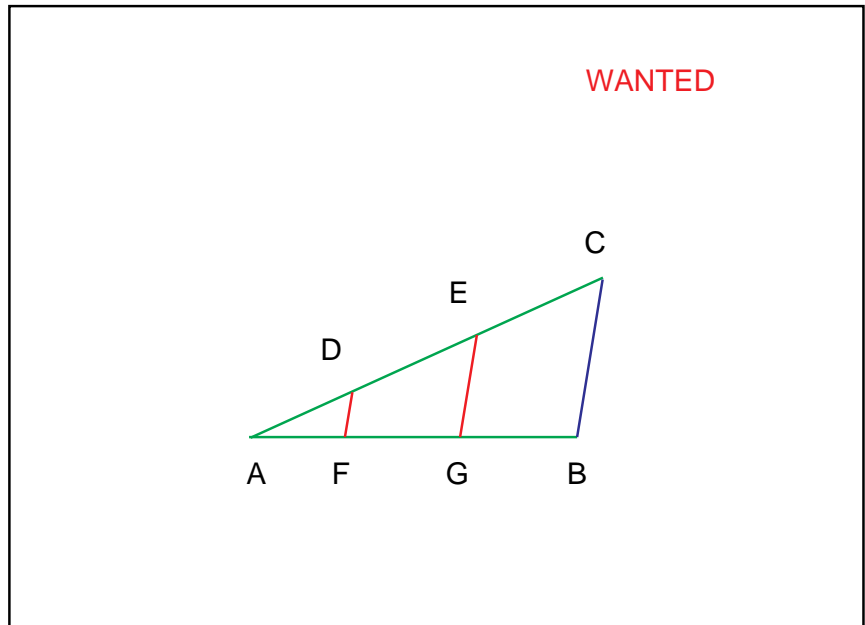
VI.10:7. let CB be joined,



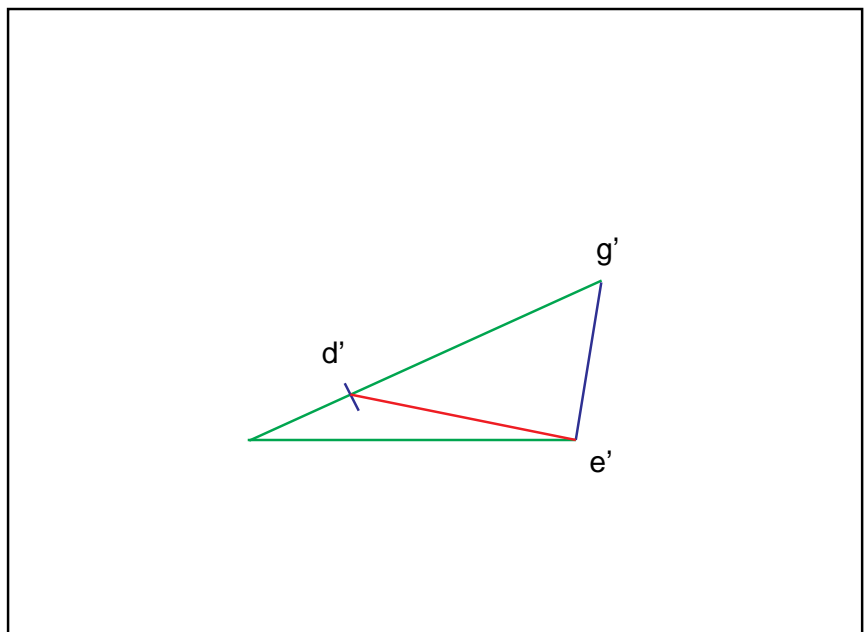
VI.10:7. and through D, E let DF, EG be drawn parallel to BC, [I.31]

GOSUB I.31 (C#10) for DF, as in C#39.

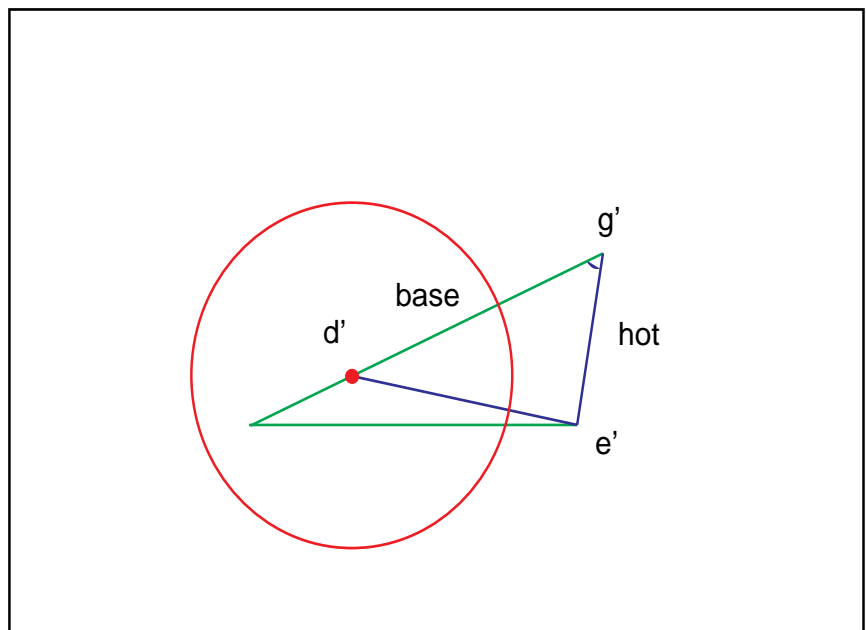
GOSUB I.23, C#9.
Relabel.



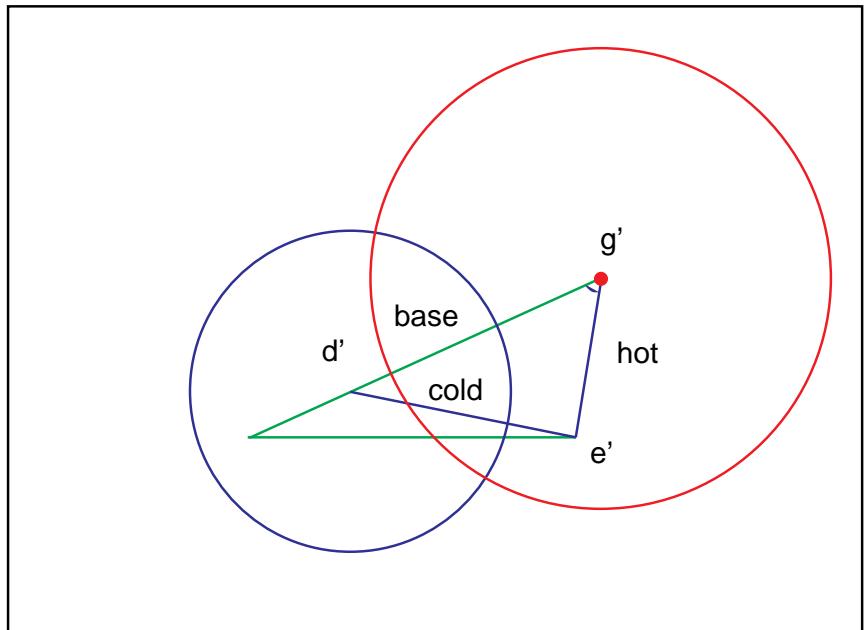
I.23:10. let $d'e'$ be joined.



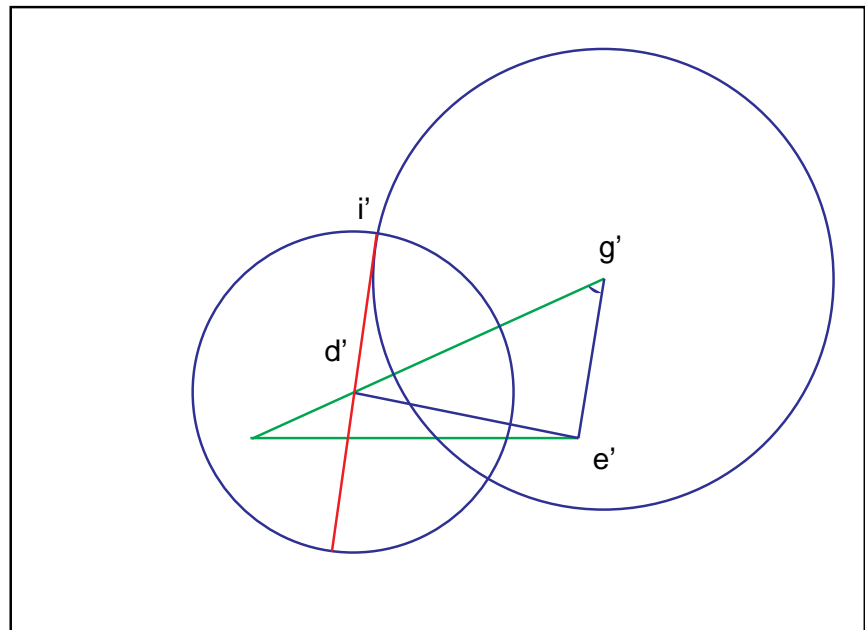
Swing the hot arm around d' .



Swing the cold arm around g' .



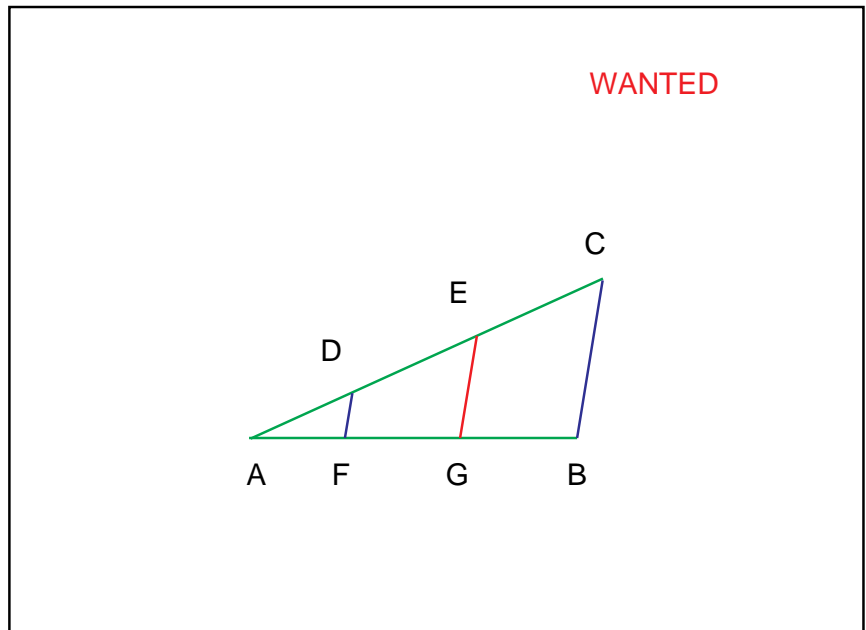
Connect the upper crossing to d' and extend.



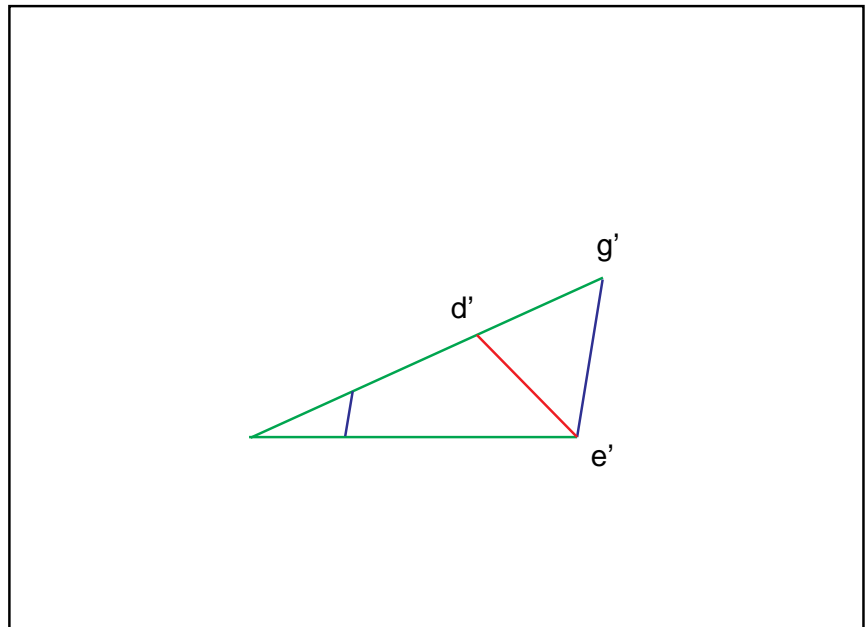
Cleanup.
RETURN to VI.10:7.

GOSUB I.31 (C#10) for EG.

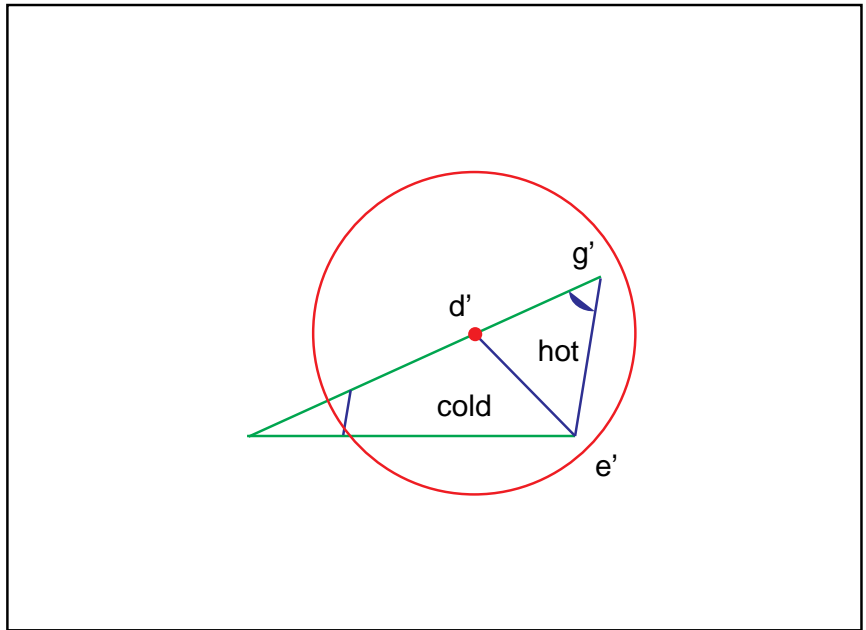
GOSUB I.23 (C#9).
Relabel.



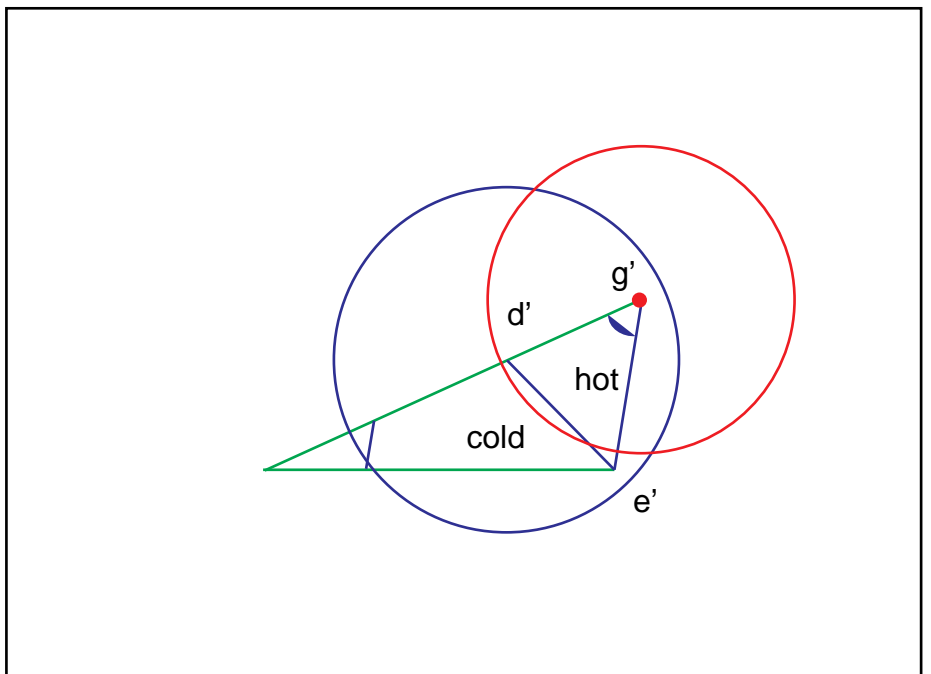
I.23:10. Let d'e' be joined.



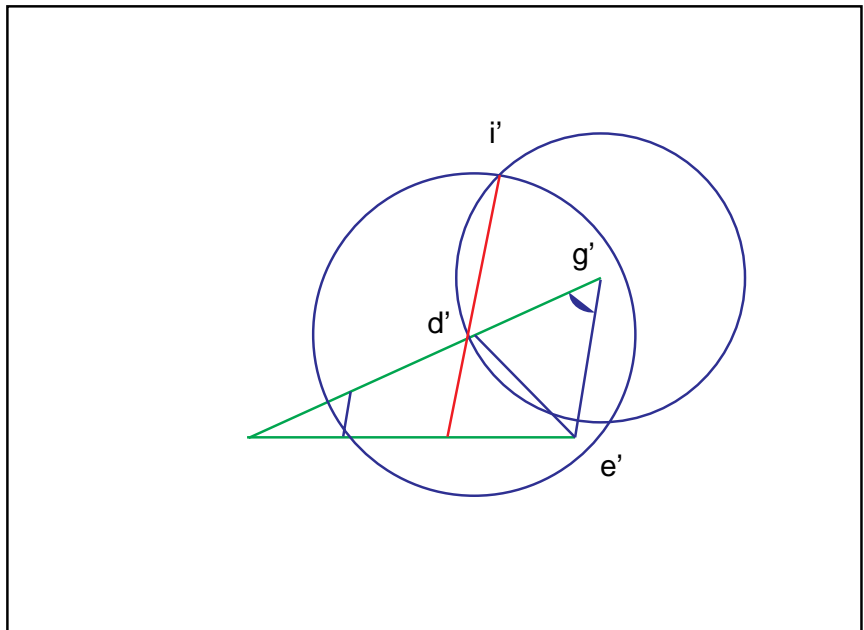
Swing the hot arm around d' .



Swing the cold arm around g' .



Connect the upper crossing i' to d' and draw through.



Cleanup. Relabel.
RETURN to VI.10:7.

VI:10:28.. Therefore the given uncut straight line AB has been cut similarly to the given cut straight line AC.

Q.E.F.

