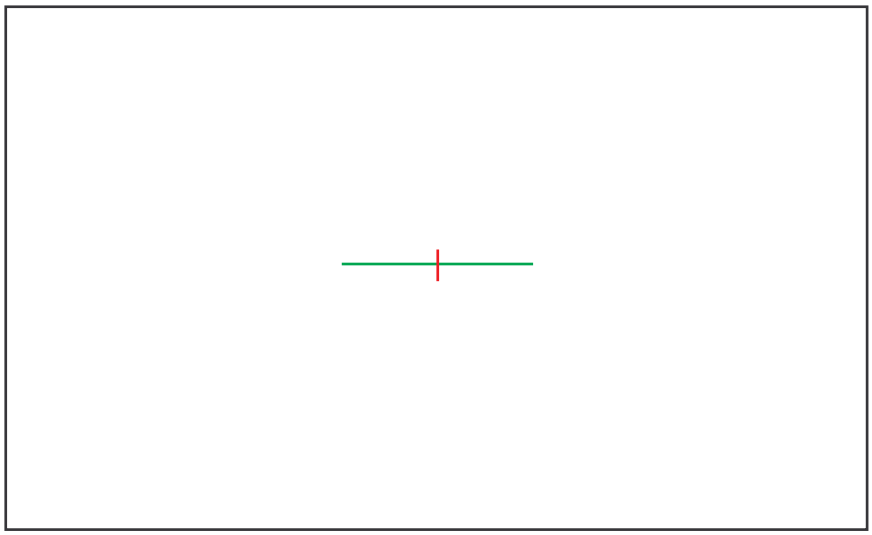
Construction 5B: Book I, Proposition 10

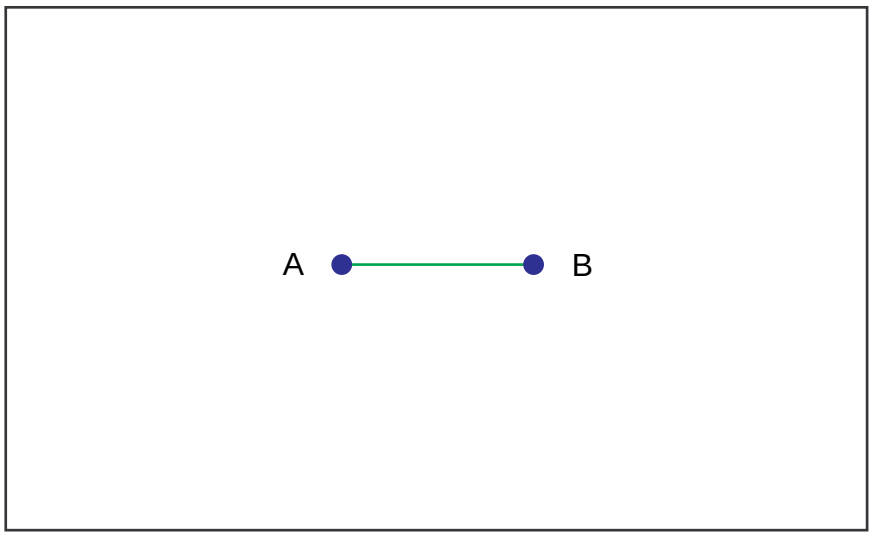
Alternate Construction

This is a shorter alternative to C#5, the construction of Euclid.

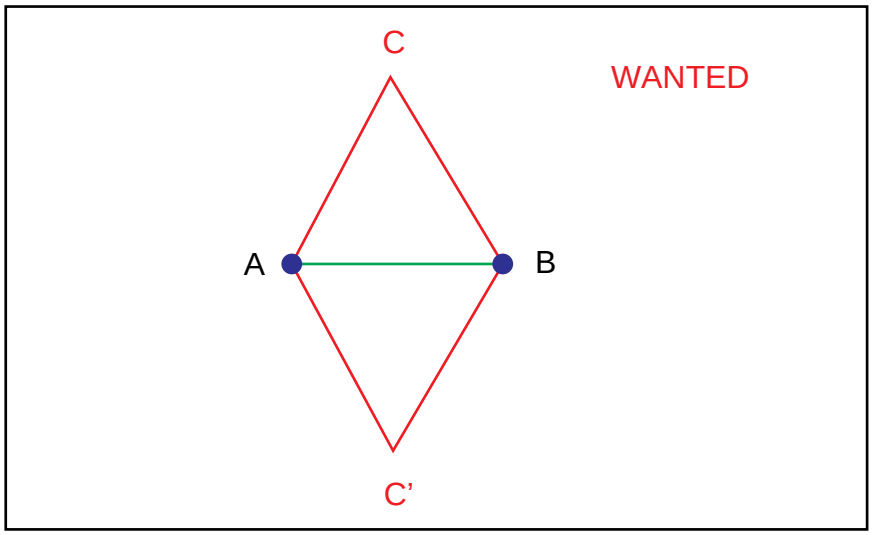
To bisect a given finite straight line.



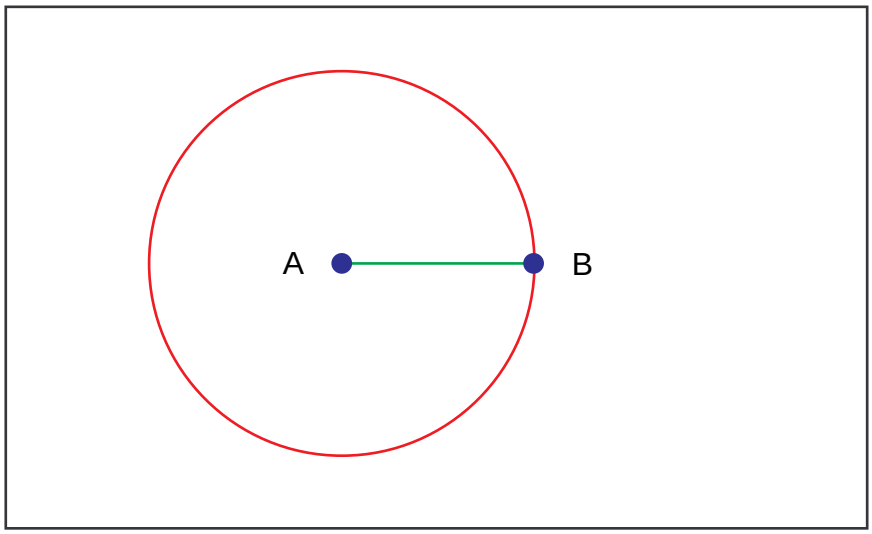
I.10:2. Let AB be the given finite straight line.



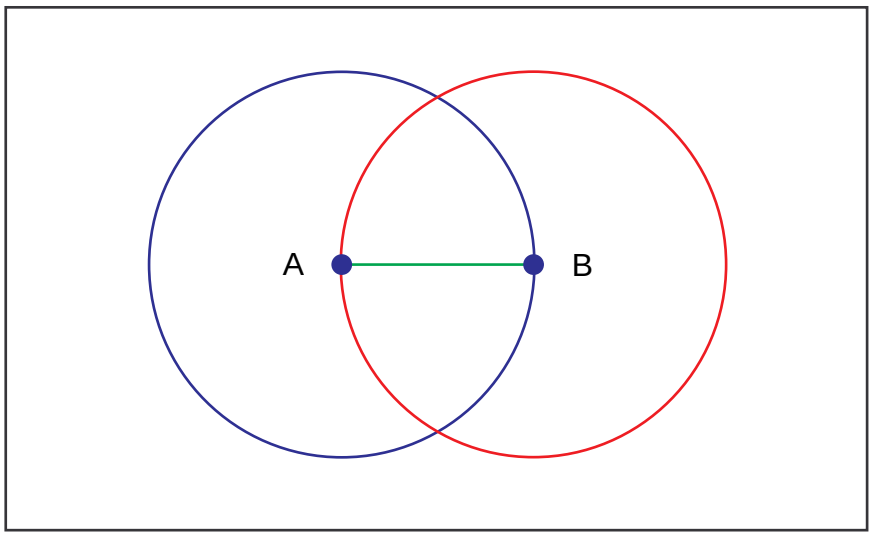
I.10:4. Let the equilateral triangle ABC be constructed on it, [I.1] GOSUB I.1.
NOTE: Only the points C, C' are actually wanted.



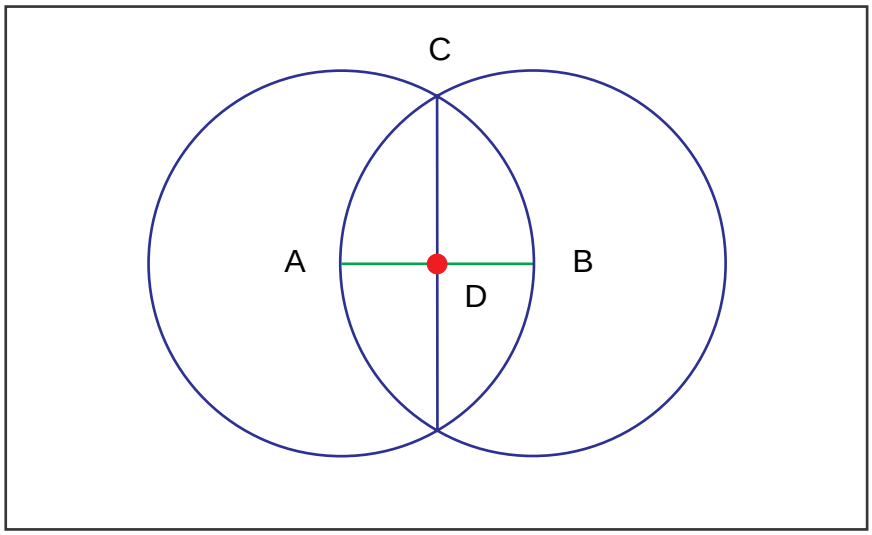
I.1:7. With centre A and distance AB let the circle BCD be described; [Post. 3]



I.1:10. again, with centre B and distance BA let the circle ACE be described; [Post.3] *Here, at the Vesica Piscus, is where we depart from C#5A.*



Connect the two crossing points and mark the point D on AB.



Q.E.F.