## Construction 1: Book I, Proposition 1

On a given finite straight line to construct an equilateral triangle.

I.1:3. Let AB be the given finite straight line.

$$
A=B
$$

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]

I.1:13. and from the point C , in which the circles cut one another, to the points A, B let the straight lines CA, CB be joined. [Post. 1]

First, CA.


Next, CB.

I.1:26. Therefore the triangle ABC is equilateral; and it has been constructed on the given finite straight line AB .

Q.E.F.

