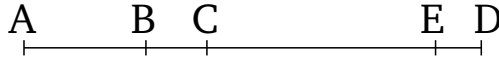


Book 9

Proposition 23

If any multitude whatsoever of odd numbers is added together, and the multitude of them is odd, then the whole will also be odd.



For let any multitude whatsoever of odd numbers, AB , BC , CD , lie together, and let the multitude of them be odd. I say that the whole, AD , is also odd.

For let the unit DE have been subtracted from CD . The remainder CE is thus even [Def. 7.7]. And CA is also even [Prop. 9.22]. Thus, the whole AE is also even [Prop. 9.21]. And DE is a unit. Thus, AD is odd [Def. 7.7]. (Which is) the very thing it was required to show.