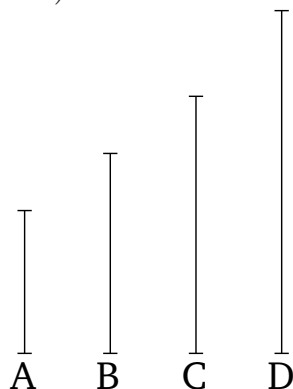


Book 7

Proposition 12

If any multitude whatsoever of numbers are proportional then as one of the leading (numbers is) to one of the following so (the sum of) all of the leading (numbers) will be to (the sum of) all of the following.



Let any multitude whatsoever of numbers, A , B , C , D , be proportional, (such that) as A (is) to B , so C (is) to D . I say that as A is to B , so A , C (is) to B , D .

For since as A is to B , so C (is) to D , thus which(ever) part, or parts, A is of B , C is also the same part, or parts, of D [Def. 7.20]. Thus, the sum A , C is also the same part, or the same parts, of the sum B , D that A (is) of B [Props. 7.5, 7.6]. Thus, as A is to B , so A , C (is) to B , D [Def. 7.20]. (Which is) the very thing it was required to show.