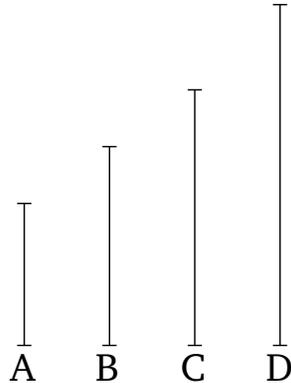


Book 7 Proposition 13

If four numbers are proportional then they will also be proportional alternately.



Let the four numbers A , B , C , and D be proportional, (such that) as A (is) to B , so C (is) to D . I say that they will also be proportional alternately, (such that) as A (is) to C , so B (is) to 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 the same parts, of D [Def. 7.20]. Thus, alterately, which(ever) part, or parts, A is of C , B is also the same part, or the same parts, of D [Props. 7.9, 7.10]. Thus, as A is to C , so B (is) to D [Def. 7.20]. (Which is) the very thing it was required to show.