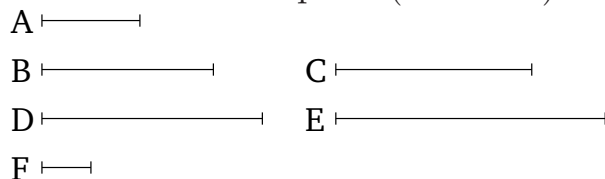


Book 7

Proposition 17

If a number multiplying two numbers makes some (numbers) then the (numbers) generated from them will have the same ratio as the multiplied (numbers).



For let the number A make (the numbers) D and E (by) multiplying the two numbers B and C (respectively). I say that as B is to C , so D (is) to E .

For since A has made D (by) multiplying B , B thus measures D according to the units in A [Def. 7.15]. And the unit F also measures the number A according to the units in it. Thus, the unit F measures the number A as many times as B (measures) D . Thus, as the unit F is to the number A , so B (is) to D [Def. 7.20]. And so, for the same (reasons), as the unit F (is) to the number A , so C (is) to E . And thus, as B (is) to D , so C (is) to E . Thus, alternately, as B is to C , so D (is) to E [Prop. 7.13]. (Which is) the very thing it was required to show.