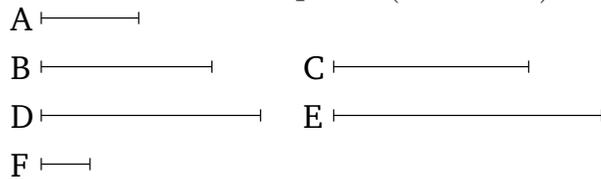


# Book 7

## 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.