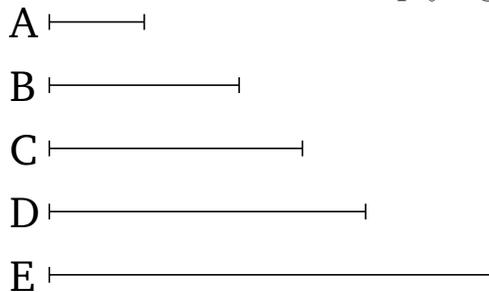


# Book 7

## Proposition 18

If two numbers multiplying some number make some (other numbers) then the (numbers) generated from them will have the same ratio as the multiplying (numbers).



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

For since  $A$  has made  $D$  (by) multiplying  $C$ ,  $C$  has thus also made  $D$  (by) multiplying  $A$  [Prop. 7.16]. So, for the same (reasons),  $C$  has also made  $E$  (by) multiplying  $B$ . So the number  $C$  has made  $D$  and  $E$  (by) multiplying the two numbers  $A$  and  $B$  (respectively). Thus, as  $A$  is to  $B$ , so  $D$  (is) to  $E$  [Prop. 7.17]. (Which is) the very thing it was required to show.