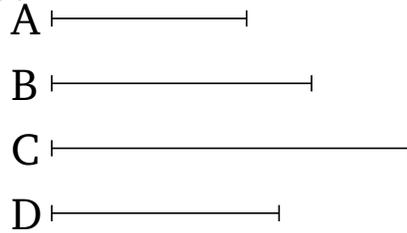


# Book 9

## Proposition 5

If a cube number makes a(nother) cube number (by) multiplying some (number) then the (number) multiplied will also be cube.



For let the cube number  $A$  make the cube (number)  $C$  (by) multiplying some number  $B$ . I say that  $B$  is cube.

For let  $A$  make  $D$  (by) multiplying itself.  $D$  is thus cube [Prop. 9.3]. And since  $A$  has made  $D$  (by) multiplying itself, and has made  $C$  (by) multiplying  $B$ , thus as  $A$  is to  $B$ , so  $D$  (is) to  $C$  [Prop. 7.17]. And since  $D$  and  $C$  are (both) cube, they are similar solid (numbers). Thus, two numbers fall (between)  $D$  and  $C$  in mean proportion [Prop. 8.19]. And as  $D$  is to  $C$ , so  $A$  (is) to  $B$ . Thus, two numbers also fall (between)  $A$  and  $B$  in mean proportion [Prop. 8.8]. And  $A$  is cube. Thus,  $B$  is also cube [Prop. 8.23]. (Which is) the very thing it was required to show.