

Book 8

Proposition 22

If three numbers are continuously proportional, and the first is square, then the third will also be square.



Let A , B , C be three continuously proportional numbers, and let the first A be square. I say that the third C is also square.

For since one number, B , is in mean proportion to A and C , A and C are thus similar plane (numbers) [Prop. 8.20]. And A is square. Thus, C is also square [Def. 7.21]. (Which is) the very thing it was required to show.