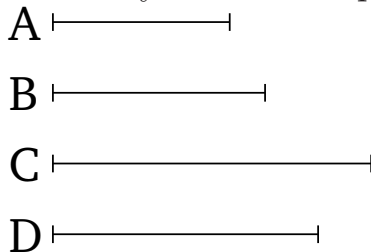


Book 9

Proposition 2

If two numbers make a square (number by) multiplying one another then they are similar plane numbers.



Let A and B be two numbers, and let A make the square (number) C (by) multiplying B . I say that A and B are similar plane numbers.

For let A make D (by) multiplying itself. Thus, D is square. 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 is square, and C (is) also, D and C are thus similar plane numbers. Thus, one (number) falls (between) D and C in mean proportion [Prop. 8.18]. And as D is to C , so A (is) to B . Thus, one (number) also falls (between) A and B in mean proportion [Prop. 8.8]. And if one (number) falls (between) two numbers in mean proportion then [the] numbers are similar plane (numbers) [Prop. 8.20]. Thus, A and B are similar plane (numbers). (Which is) the very thing it was required to show.