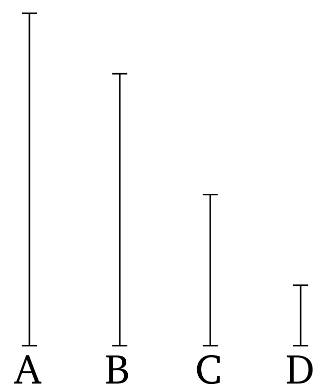
Book 7
Proposition 23

If two numbers are prime to one another then a number measuring one of them will be prime to the remaining (one).



Let A and B be two numbers (which are) prime to one another, and let some number C measure A. I say that C and B are also prime to one another.

For if C and B are not prime to one another then [some] number will measure C and B. Let it (so) measure (them), and let it be D. Since D measures C, and C measures A, D thus also measures A. And (D) also measures B. Thus, D measures A and B, which are prime to one another. The very thing is impossible. Thus, some number does not measure the numbers C and B. Thus, C and B are prime to one another. (Which is) the very thing it was required to show.