Book 8 Proposition 27

Similar solid numbers have to one another the ratio which (some) cube number (has) to a(nother) cube number.

A	E
C —	F
$D \vdash\!$	$G \vdash \!$
В ———	Н

Let A and B be similar solid numbers. I say that A has to B the ratio which (some) cube number (has) to a(nother) cube number.

For since A and B are similar solid (numbers), two numbers thus fall (between) A and B in mean proportion [Prop. 8.19]. Let C and D have (so) fallen. And let the least numbers, E, F, G, H, having the same ratio as A, C, D, B, (and) equal in multitude to them, have been taken [Prop. 8.2]. Thus, the outermost of them, E and H, are cube [Prop. 8.2 corr.]. And as E is to H, so A (is) to B. And thus A has to B the ratio which (some) cube number (has) to a(nother) cube number. (Which is) the very thing it was required to show.