Reading: Euclid's Elements

BK 5 Prop 15 Magnitudes have the same ratio to one another as their equimultipes have.

Let ● and ■ be two magnitudes;

then, ● : ■ :: M'● : M'■.

For

$$\begin{aligned} \bullet : \blacksquare &= \bullet : \blacksquare \\ &= \bullet : \blacksquare \\ &= \bullet : \blacksquare \end{aligned}$$

$\therefore$ ● : ■ :: 4● : 4■ (Book 5 Proposition 12).

And as the same resoning is generaly applicable we have:

$$\bullet : \blacksquare :: M'\bullet : M'\blacksquare$$

$\therefore$ Magnitudes have the same ratio, etc.