

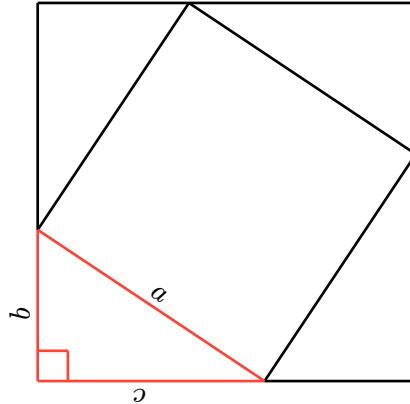
Theorema trium quadratōrum

Theorēma 0.1 Sint longitūdinēs laterum triangulī a, b, c . Angulus inter b et c sit rēctus. Latus oppositum angulō rēctō sit a . Tum aequātiō

$$a^2 = b^2 + c^2$$

valet.

Demonstrātiō Cōsiderēmus figūram sēquentem.



Cuiusque triangulī area est $\frac{1}{2}bc$. Quadrātī mediī area est a^2 . Et quadrātī externī area est $(b + c)^2$. Hinc sequitur.

$$\begin{aligned}(b + c)^2 &= 4\left(\frac{1}{2}bc\right) + a^2 \\ b^2 + 2bc + c^2 &= 2bc + a^2 \\ a^2 &= b^2 + c^2\end{aligned}$$

Quod erat demonstrandum. □