Universitas *****
Schola Graduatorum Scientiae Creativae
Cursus Scientiarum Mathematicarum in Disciplinā Fundamentālī

Theorema trium quadrātōrum

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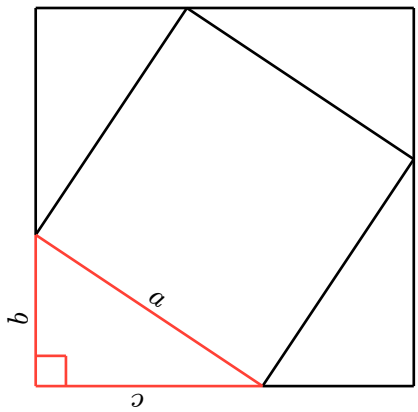
Theorēma 0.1 Sint longitūdinēs laterum triangulī a, b, c. Angulus inter b et c sit rēctus. Latus oppositum angulō rēctō sit a. Tum aequātiō

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

valet.

Demonstrātiō Cōnsiderēmus figūram sequentem.



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

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

Quod erat demonstrandum. □