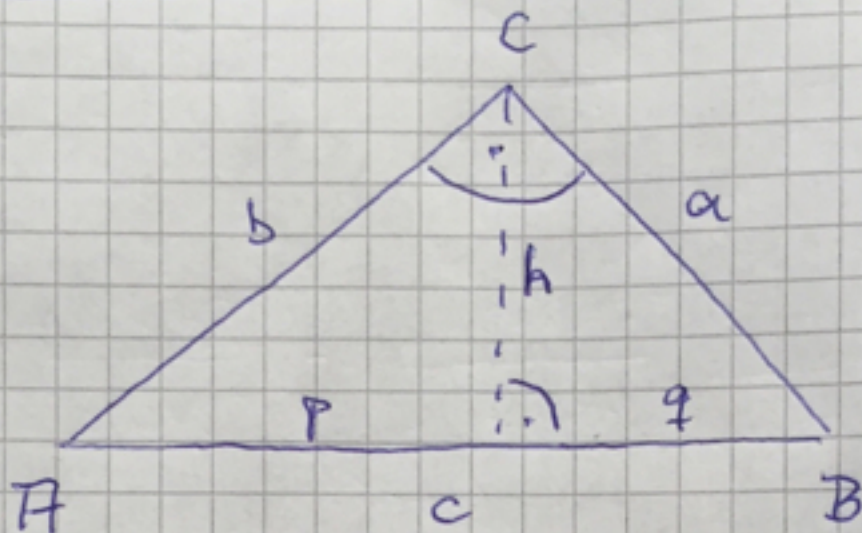


Höhensatz des Euklid:



Im rechtwinkligen  $\Delta$  gilt:

$$a^2 = h^2 + q^2$$
$$(+) \quad b^2 = h^2 + p^2$$

$$a^2 + b^2 = 2h^2 + p^2 + q^2 \quad | \quad a^2 + b^2 = c^2$$

$$(p+q)^2 = 2h^2 + p^2 + q^2 \quad c = (p+q)$$

$$p^2 + 2pq + q^2 = 2h^2 + p^2 + q^2 \quad | \quad -p^2 - q^2$$

$$\Rightarrow \quad 2h^2 = 2pq \quad | \quad : 2$$

$$\underline{\underline{h^2 = p \cdot q}}$$