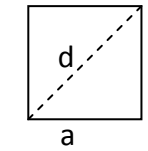
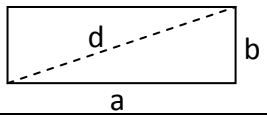
Anwendung des pythagoräischen Lehrsatzes bei ebenen Figuren



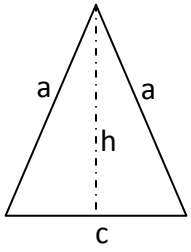
Quadrat:

$d = s \cdot \sqrt{2}$



Rechteck:

$d = \sqrt{a^2 + b^2}$



Gleichschenkeliges Dreieck:

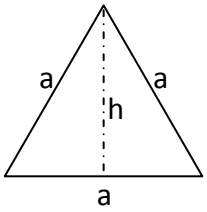
$a = \sqrt{h^2 + \left(\frac{c}{2}\right)^2}$

$h = \sqrt{a^2 - \left(\frac{c}{2}\right)^2}$

$\frac{c}{2} = \sqrt{a^2 - h^2}$

$A = \frac{c \cdot h}{2}$

$U = 2a + c$



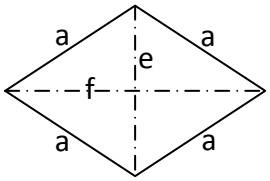
Gleichseitiges Dreieck

$h = \frac{a}{2} \cdot \sqrt{3}$

$A = \frac{a^2}{4} \cdot \sqrt{3}$

$U = 3a$

Regelmäßiges Sechseck: $A = 6 \cdot \frac{a^2}{4} \cdot \sqrt{3}$

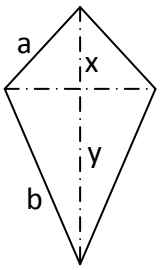


Raute

$a = \sqrt{\left(\frac{e}{2}\right)^2 + \left(\frac{f}{2}\right)^2}$

$A = \frac{e \cdot f}{2}$

$U = 4a$



e … senkrechte Diagonale
f … waagrechte Diagonale

Deltoid

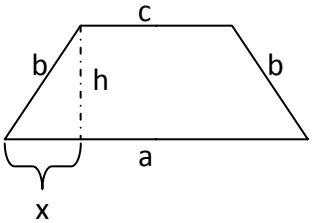
$a = \sqrt{\left(\frac{f}{2}\right)^2 + x^2}$

$b = \sqrt{\left(\frac{f}{2}\right)^2 + y^2}$

$e = x + y$

$A = \frac{e \cdot f}{2}$

$U = (a + b) \cdot 2$



gleichschenkeliges Trapez

$x = (a - c) : 2$

$h = \sqrt{b^2 - x^2}$

$A = \frac{(a + c) \cdot h}{2}$

$U = a + 2b + c$