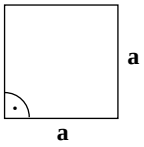
Mathematische Formeln

Ebene Figuren (Fläche A, Umfang u)

Quadrat

$A = a^2 = a \cdot a$

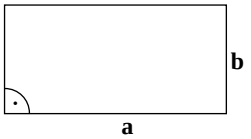
$u = 4 \cdot a$



Rechteck

$A = a \cdot b$

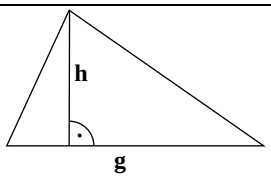
$u = 2 \cdot a + 2 \cdot b$



Dreieck

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

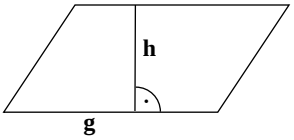
$u = a + b + c$



Parallelogramm

$A = g \cdot h$

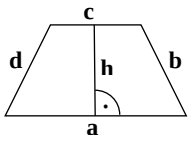
$u = 2 \cdot a + 2 \cdot b$



Trapez

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

$u = a + b + c + d$

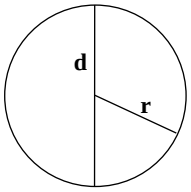


Kreis

$d = 2 \cdot r$

$A = \pi \cdot r^2 = \pi \cdot r \cdot r$

$u = 2 \cdot \pi \cdot r$ oder $u = d \cdot \pi$

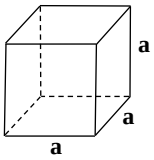


Körper (Volumen V, Oberfläche O, Grundfläche G, Mantelfläche M)

Würfel

$V = a^3 = a \cdot a \cdot a$

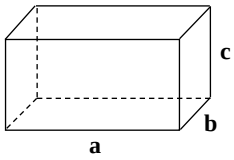
$O = 6 \cdot a^2 = 6 \cdot a \cdot a$



Quader

$V = a \cdot b \cdot c$

$O = 2 \cdot a \cdot b + 2 \cdot b \cdot c + 2 \cdot a \cdot c$

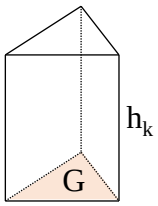


Prisma

$V = G \cdot h_k$

$M = u \cdot h_k$

$O = 2 \cdot G + M$



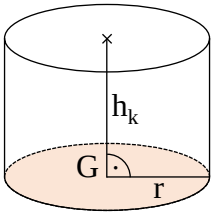
Zylinder

$V = \pi \cdot r^2 \cdot h_k$

$O = 2 \cdot G + M$

$G = \pi \cdot r^2$

$M = 2 \cdot \pi \cdot r \cdot h_k$



Prozent- und Zinsrechnung

P_W: Prozentwert
G: Grundwert
p: Prozentsatz / Zinssatz
K: Kapital
Z: Zinsen

$P_W = \frac{G \cdot p}{100}$ $\quad G = \frac{P_W}{p} \cdot 100$ $\quad p = \frac{P_W}{G} \cdot 100$

$Z = \frac{K \cdot p}{100}$