

Thema :

Formelsammlung Klasse 10a

Allgemein

Prozent: $PW = \frac{p\% * G}{100}$ $G = \frac{PW * 100}{p\%}$ $p\% = \frac{PW * 100}{G}$

Zinsen: $Z = \frac{K * p\%}{100}$ $Z_i = \frac{K * i * p\%}{12 * 100}$ $Z_i = \frac{K * i * p\%}{360 * 100}$

Flächen

Quadrat: $u = 4 * a$ $A = a^2$ $e = f = a * \sqrt{2}$

Rechteck: $u = 2 * (a + b)$ $A = a * b$ $e = f = \sqrt{a^2 + b^2}$

Parallelogramm: $u = 2 * (a + b)$ $A = g * h_g$
(Rhomboid)

Rhombus: $u = 4 * a$ $A = a * h_a$ $A = \frac{e * f}{2}$
(Raute)

Drachenviereck: $u = 2 * (a + c)$ $A = \frac{e * f}{2}$

Trapez: $u = a + b + c + d$ $A = \frac{a + c}{2} * h$ $A = m * h$

Dreieck: $u = a + b + c$ $A = \frac{g * h_g}{2}$ (g = Grundseite)

$c^2 = a^2 + b^2$ (Pythagoras)

Kathetenquadrat 1 + Kathetenquadrat 2 = Hypothenusenquadrat

Kreis: $u = \pi * 2r$ $u = \pi * d$ $A = \pi * r^2$ $A = \pi * \frac{d^2}{4}$

Kreisring ($r_2 > r_1$): $a = (r_2 - r_1)$ $u = 2 * \pi * (r_1 + r_2)$ $A = \pi * (r_2^2 - r_1^2)$

Kreisausschnitt: $A_\alpha = \pi * r^2 * \frac{\alpha}{360^\circ}$ $A_\alpha = \frac{b * r}{2}$ $b = \pi * 2r * \frac{\alpha}{360^\circ}$ $\frac{b}{u} = \frac{\alpha}{360^\circ}$

(Kreissektor)