

**Formelsammlung
Klasse 10B**

Allgemein

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

Zinsen: $Z = \frac{K * p\%}{100}$ $Z_m = \frac{K * m * p\%}{100 * 12}$ $Z_t = \frac{K * t * p\%}{100 * 360}$ $Z_n = K_0 * \left(\frac{100 + p\%}{100}\right)^n$

Flächen

Quadrat: $u = 4 * a$ $A = a^2$ $e = f = a * \sqrt{2}$ $a + b = 180^\circ$

Rechteck: $u = 2 * (a + b)$ $A = a * b$ $e = f = \sqrt{a^2 + b^2}$ $a + b = 180^\circ$

Parallelogramm: $u = 2 * (a + b)$ $A = g * h_g$ $a + b = 180^\circ$
(Rhomboid)

Rhombus: $u = 4 * a$ $A = a * h_a$ $A = \frac{e * f}{2}$ $a + b = 180^\circ$
(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) $h^2 = q + p$ (Höhensatz)
 $a^2 = p * c$ (Kathetensatz) $b^2 = q * c$ (Kathetensatz)

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

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

Kreisausschnitt: $A_a = p * r^2 * \frac{a}{360^\circ}$ $A_a = \frac{b * r}{2}$ $b = p * 2r * \frac{a}{360^\circ}$ $\frac{b}{u} = \frac{a}{360^\circ}$
(Kreissektor)