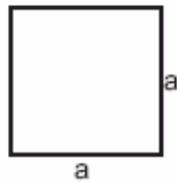


Formelsammlung für die Abschlussprüfung Hauptschule Klasse 10
Blatt 1

Flächenberechnungen

Quadrat

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



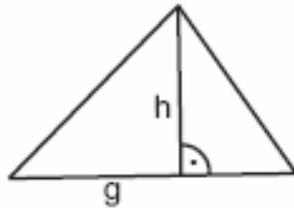
Rechteck

$A = a \cdot b$



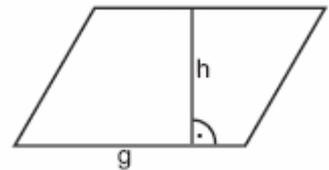
Dreieck

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



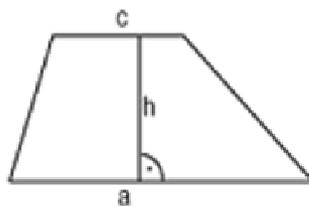
Parallelogramm

$A = g \cdot h$



Trapez

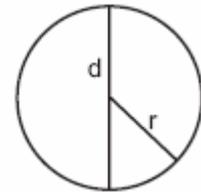
$A = \frac{a+c}{2} \cdot h$



Kreis

$A = \pi \cdot r^2$

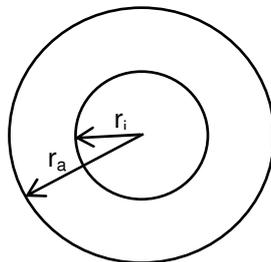
$u = 2\pi \cdot r$



Kreisring

$A_{KR} = \pi \cdot r_a^2 - \pi \cdot r_i^2$

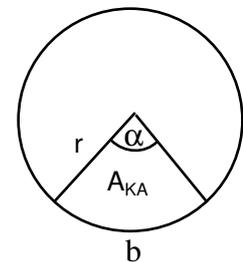
$u_{KR} = 2\pi \cdot r_a + 2\pi \cdot r_i$



Kreisausschnitt

$A_{KA} = \frac{\alpha}{360^\circ} \cdot \pi \cdot r^2$

$b = \frac{\alpha}{360^\circ} \cdot 2\pi \cdot r$



Körperberechnungen

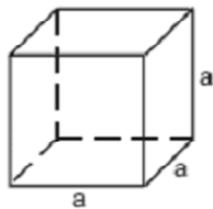
Würfel

$V = a \cdot a \cdot a$

oder

$V = a^3$

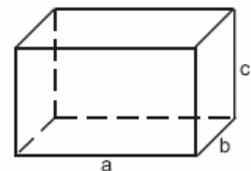
$O = 6 \cdot a^2$



Quader

$V = a \cdot b \cdot c$

$O = 2 \cdot ab + 2 \cdot ac + 2 \cdot bc$

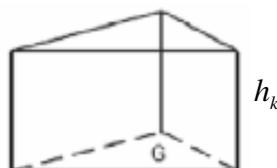


Prisma

$V = G \cdot h_k$

$M = u \cdot h_k$

$O = 2 \cdot G + M$



Zylinder

$V = G \cdot h_k$

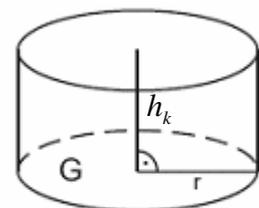
oder

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

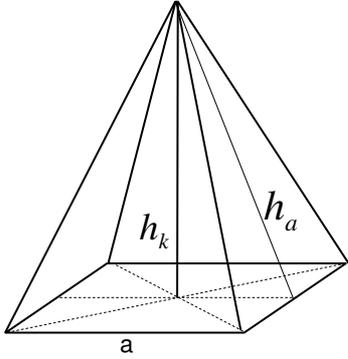
$O = 2 \cdot G + M$

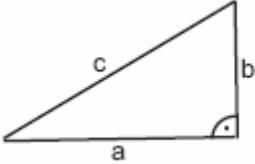
oder

$O = 2 \cdot \pi \cdot r^2 + 2\pi \cdot r \cdot h_k$

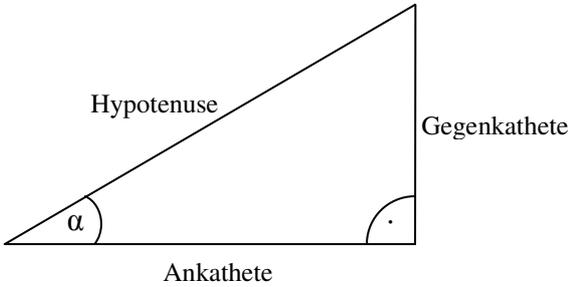


Formelsammlung für die Abschlussprüfung Hauptschule Klasse 10
Blatt 2

<p><u>Quadratische Pyramide</u></p> $V = \frac{1}{3} a^2 \cdot h_k$ $M = 4 \cdot \frac{a \cdot h_a}{2}$ $O = a^2 + 4 \cdot \frac{a \cdot h_a}{2}$ 	<p><u>Spitzkörper</u></p> $V = \frac{1}{3} G \cdot h_k$ $O = G + M$	<p><u>Kugel</u></p> $V = \frac{4}{3} \pi \cdot r^3$ $O = 4\pi \cdot r^2$
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<p><u>Pythagoras</u></p> <p>In jedem rechtwinkligen Dreieck gilt:</p> $a^2 + b^2 = c^2$	
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<p><u>Prozentformel</u></p> $P = G \cdot \frac{p}{100}$	<p><u>Zinsformel</u></p> $Z = K \cdot \frac{p}{100} \cdot \frac{t}{360}$
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<p><u>Trigonometrie</u></p> <p>Im rechtwinkligen Dreieck gilt:</p> $\sin \alpha = \frac{\text{Gegenkathete}}{\text{Hypotenuse}}$ $\cos \alpha = \frac{\text{Ankathete}}{\text{Hypotenuse}}$ $\tan \alpha = \frac{\text{Gegenkathete}}{\text{Ankathete}}$	
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