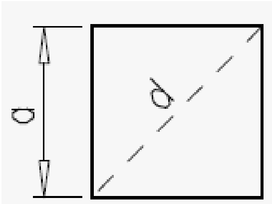
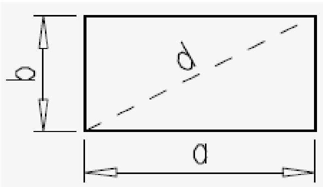
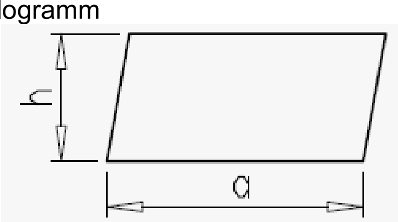
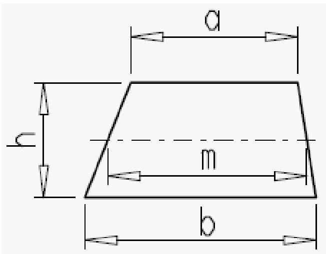
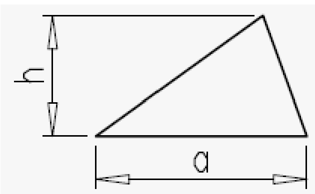
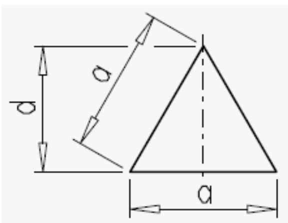
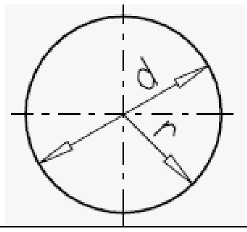
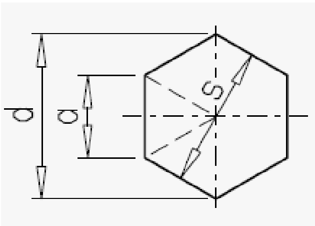
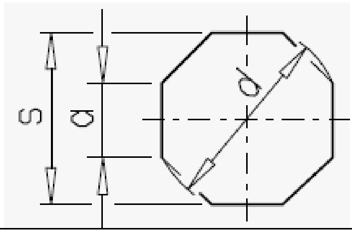
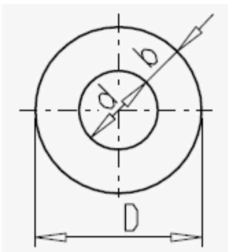
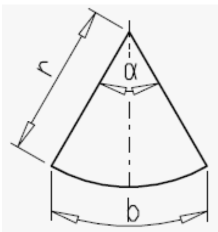
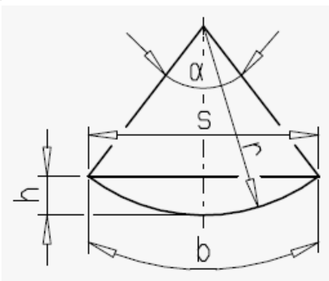
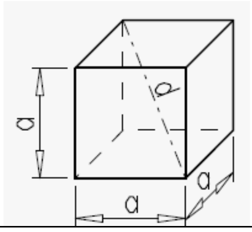
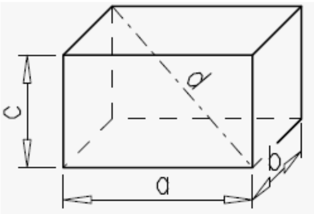
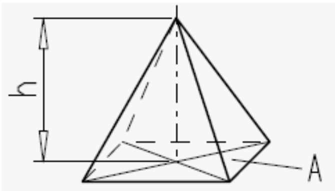
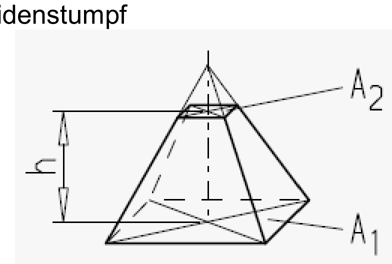
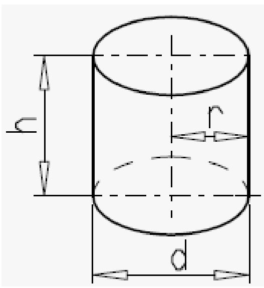
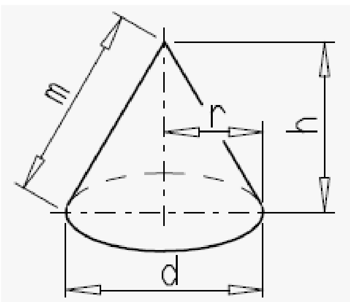
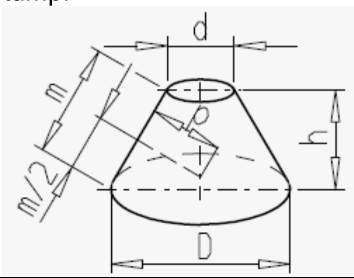
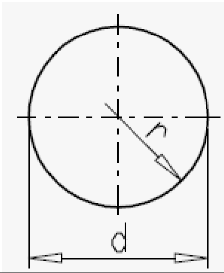
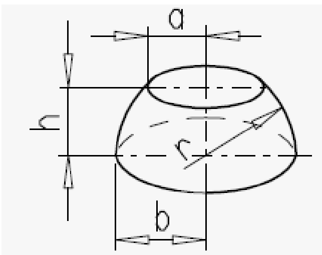
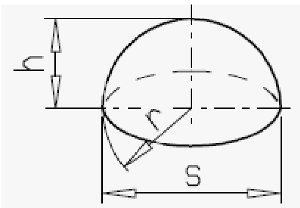
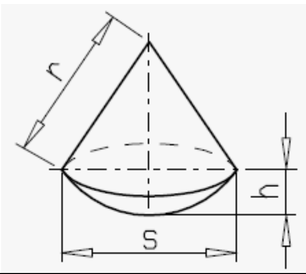
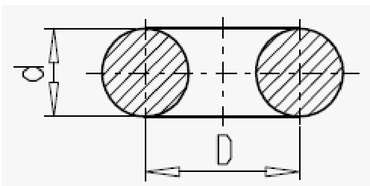
Grundlagen Geometrie - Flächen	
A = Fläche d = Diagonale / Durchmesser h = Höhe U = Umfang r = Radius	
Quadrat 	$A = a^2$ $a = \sqrt{A}$ $d = a\sqrt{2}$ $U = 4 \cdot a$
Rechteck 	$A = a \cdot b$ $d = \sqrt{a^2 + b^2}$ $U = 2 \cdot a + 2 \cdot b$
Parallelogramm 	$A = a \cdot h$ $a = \frac{A}{h}$
Trapez 	$A = m \cdot h$ $m = \frac{a + b}{2}$
Dreieck 	$A = \frac{1}{2} \cdot a \cdot h$ $a = \frac{2 \cdot A}{h}$
Gleichseitiges Dreieck 	$A = \frac{a^2}{4}\sqrt{3}$ $d = \frac{a}{2}\sqrt{3}$

Kreis 	$A = \frac{d^2 \cdot \pi}{4} = \pi \cdot r^2 \approx 0{,}785 \cdot d^2$ $U = 2 \cdot r \cdot \pi = \pi \cdot d$ $d = 2 \cdot r$
Sechseck 	$A = \frac{3 \cdot a^2 \cdot \sqrt{3}}{2}$ $d = 2 \cdot a$ $s = \sqrt{3} \cdot a$
Achteck 	$A = 2 \cdot a^2 \left(\sqrt{2} + 1\right)$ $d = a \cdot \sqrt{4 + 2\sqrt{2}}$ $s = a(\sqrt{2 + 1}$
Kreisring 	$A = \frac{\pi}{4} \cdot (D^2 - d^2) = (d + b)b \cdot \pi$ $b = \frac{D - d}{2}$
Kreisausschnitt 	$A = \frac{r^2 \cdot \pi \cdot \alpha^\circ}{360^\circ} = \frac{b \cdot r}{2}$ $b = \frac{r \cdot \pi \cdot \alpha^\circ}{180^\circ}$
Kreisabschnitt 	$A = \frac{r^2}{2}\left(\frac{\alpha^\circ \cdot \pi}{180^\circ} - \sin\alpha\right) = \frac{1}{2}[r\,(b - s) + sh]$ $s = 2r \cdot \sin\frac{\alpha}{2}$ $h = r\,(1 - \cos\frac{\alpha}{2}) = \frac{s}{2}\tan\frac{\alpha}{4}$ $\hat{\alpha} = \frac{\alpha^\circ \cdot \pi}{180^\circ}$ $b = r \cdot \hat{\alpha}$

Grundlagen Geometrie - Volumina	
V = Volumen O = Oberfläche M = Mantel h = Höhe A = Fläche r = Radius d/D = Durchmesser	
Würfel 	$V = a^3$ $O = 6 \cdot a^2$ $d = a\sqrt{3}$
Quader 	$V = a \cdot b \cdot c$ $O = 2(ab + ac + bc)$ $d = \sqrt{a^2 + b^2 + c^2}$
Pyramide 	$V = \frac{A \cdot h}{3}$
Pyramidenstumpf 	$V = \frac{h}{3}\left(A_1 + A_2 + \sqrt{A_1 + A_2}\right)$
Zylinder 	$V = \frac{h \cdot \pi}{4}(D^2 - d^2)$ $M = 2 \cdot \pi \cdot r \cdot h$ $O = 2 \cdot r \cdot \pi \cdot (r + h)$
Kegel 	$V = \frac{r^2 \cdot \pi \cdot h}{3}$ $M = r \cdot \pi \cdot m$ $O = r \cdot \pi \cdot (r + m)$ $m = \sqrt{h^2 + \left(\frac{d}{2}\right)^2}$

Kegelstumpf 	$V = \frac{\pi \cdot h}{12}(D^2 + Dd + d^2)$ $M = \frac{\pi \cdot m}{2}(D + d) = 2 \cdot \pi \cdot p \cdot h$ $m = \sqrt{\left(\frac{D - d}{2}\right)^2 + h^2}$
Kugel 	$V = \frac{4}{3} r^3 \pi = \frac{1}{6} \cdot d^3 \pi \approx 4{,}189 \cdot r^3$ $O = 4\pi \cdot r^2 = \pi \cdot d^2$
Kugelzone 	$V = \frac{\pi \cdot h}{6}(3a^2 + 3b^2 + h^2)$ $M = 2 \cdot \pi \cdot r \cdot h$
Kugelabschnitt 	$V = \frac{\pi \cdot h}{6}\left(\frac{3}{4}s^2 + h^2\right) = \pi h^2 \left(r - \frac{h}{3}\right)$ $M = 2 \cdot r \cdot \pi \cdot h = \frac{\pi}{4}(s^2 + 4h^2)$
Kugelausschnitt 	$V = \frac{2}{3} \cdot h \cdot r^2 \cdot \pi$ $O = \frac{\pi \cdot r}{2}(4h + s)$
Kreisring 	$V = \frac{D \cdot \pi^2 \cdot d^2}{4}$ $O = D \cdot d \cdot \pi^2$