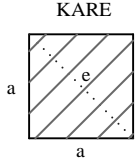
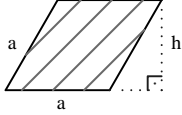


GEOMETRİK ŞEKLE GÖRE KAPLAMA YÜZEYİ HESAPLAMA FORMÜLLERİ

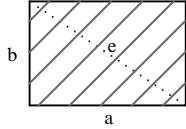


KARE

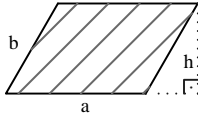
Alan : $A = a \times a$
 Köşegen : $e = a \times \sqrt{2}$
 Uzunluğu : $U = a$
 Çevre : $\Ç = 4 \times a$
 Örnek: $a = 5$ dm için
 $A = 5 \times 5$ $A = 25$ dm²
 $e = 5 \times \sqrt{2}$ $e = 7,07$ dm
 $\Ç = 4 \times 5$ $\Ç = 20$ dm

EŞKENAR PARALEL

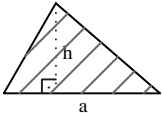
Alan : $A = a \times h$
 Kenar : $a = \frac{A}{h}$
 Uzunluğu : $U = a$
 Çevre : $\Ç = 4 \times a$
 Örnek: $a = 5$ dm $h = 3$ dm için
 $A = 5 \times 3$ $A = 15$ dm²
 $a = \frac{15}{3}$ $a = 5$ dm
 $\Ç = 4 \times 5$ $\Ç = 20$ dm

DİKDÖRTGEN

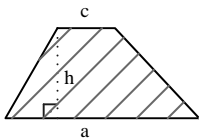
Alan : $A = a \times b$
 Taban : $a = \frac{A}{b}$
 Uzunluğu : $U = a$
 Köşegen : $e = \sqrt{a^2 + b^2}$
 Uzunluğu : $U = a$
 Çevre : $\Ç = 2 \times (a + b)$
 Örnek: $a = 5$ dm $b = 3$ dm için
 $A = 5 \times 3$ $A = 15$ dm²
 $a = \frac{15}{3}$ $a = 5$ dm
 $e = \sqrt{5^2 + 3^2}$ $e = 5,83$ dm
 $\Ç = 2 \times (5 + 3)$ $\Ç = 16$ dm

PARALELKENAR

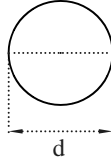
Alan : $A = a \times h$
 Taban : $a = \frac{A}{h}$
 Uzunluğu : $U = a$
 Çevre : $\Ç = 2 \times (a + b)$
 Örnek: $a = 5$ dm $b = 4$ dm
 $h = 3$ dm için
 $A = 5 \times 3$ $A = 15$ dm²
 $a = \frac{15}{3}$ $a = 5$ dm
 $\Ç = 2 \times (5 + 4)$ $\Ç = 18$ dm

ÜÇGEN

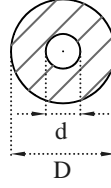
Alan : $A = \frac{a \times h}{2}$
 Taban : $a = \frac{2 \times A}{h}$
 Uzunluğu : $U = a$
 Yükseklik : $h = \frac{2 \times A}{a}$
 Örnek: $a = 5$ dm $h = 3$ dm için
 $A = \frac{5 \times 3}{2}$ $A = 7,5$ dm²
 $a = \frac{2 \times 7,5}{3}$ $a = 5$ dm
 $h = \frac{2 \times 7,5}{5}$ $h = 3$ dm

YAMUK

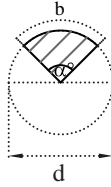
Alan : $A = \frac{a+c}{2} \times h$
 Taban : $a = \frac{2 \times A}{h} - c$
 Uzunluğu : $U = a$
 Yükseklik : $h = \frac{2 \times A}{a+c}$
 Örnek: $a = 8$ dm $c = 4$ dm
 $h = 3$ dm için
 $A = \frac{8+4}{2} \times 3$ $A = 18$ dm²
 $a = \frac{2 \times 18}{3} - 4$ $a = 8$ dm
 $h = \frac{2 \times 18}{8+4}$ $h = 3$ dm

DAİRE

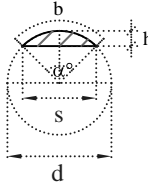
Alan : $A = \frac{\Pi \times d^2}{4}$
 Çevre : $\Ç = \sqrt{\frac{4 \times A}{\Pi}}$
 Çevre : $\Ç = \Pi \times d$
 Örnek: $d = 5$ dm için
 $A = \frac{3,14 \times 5^2}{4}$ $A = 19,625$ dm²
 $d = \sqrt{\frac{19,625}{0,785}}$ $d = 5$ dm
 $\Ç = 3,14 \times 5$ $\Ç = 15,7$ dm

HALKA

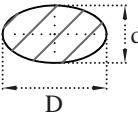
Alan : $A = \frac{\Pi \times (D^2 - d^2)}{4}$
 Çevre : $\Ç = \sqrt{\frac{4 \times A}{\Pi} + d^2}$
 Örnek: $D = 5$ dm $d = 2$ dm için
 $A = \frac{3,14 \times (5^2 - 2^2)}{4}$ $A = 16,485$ dm²
 $D = \sqrt{\frac{4 \times 16,485}{3,14} + d^2}$ $D = 5$ dm

DAİRE DİLİMİ

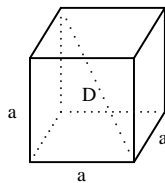
Alan : $A = \frac{b \times d}{4}$
 Daire Kenar : $b = \Pi \times d \times \frac{\alpha^\circ}{360^\circ}$
 Uzunluğu : $U = b$
 Örnek: $d = 5$ dm $b = 3,925$ dm için
 $A = \frac{5 \times 3,925}{4}$ $A = 4,91$ dm²
 $b = 3,14 \times 5 \times \frac{90^\circ}{360^\circ}$ $b = 3,925$ dm

DAİRE DİLİMİ KESMESİ

Alan : $A = \frac{b \times d}{4}$
 Daire Kenar : $b = \Pi \times d \times \frac{\alpha^\circ}{360^\circ}$
 Uzunluğu : $U = b$
 Örnek: $d = 5$ dm $b = 3,925$ dm için
 $A = \frac{5 \times 3,925}{4}$ $A = 4,91$ dm²
 $b = 3,14 \times 5 \times \frac{90^\circ}{360^\circ}$ $b = 3,925$ dm

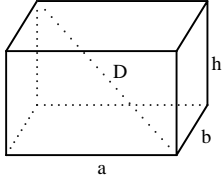
ELİPS

Alan : $A = \frac{D \times d \times \Pi}{4}$
 Çevre : $h \cong \frac{(D+d)}{2} \times \Pi$
 Örnek: $D = 5$ dm $d = 3$ dm için
 $A = \frac{5 \times 3 \times 3,14}{4}$ $A = 11,775$ dm²
 $h \cong \frac{(5+3)}{2} \times 3,14$ $h \cong 12,56$ dm

KÜP

Hacim : $V = a^3$
 Kenar : $a = \sqrt[3]{V}$
 Uzunluğu : $U = a$
 Köşegen : $D = a \times \sqrt{3}$
 Yüzey : $Y = 6 \times a^2$
 Alanı : $A = 6 \times a^2$
 Örnek: $a = 5$ dm için
 $V = 5^3$ $V = 125$ dm³
 $a = \sqrt[3]{125}$ $a = 5$ dm
 $D = 5 \times \sqrt{3}$ $D = 8,66$ dm
 $Y = 6 \times 5^2$ $Y = 150$ dm²

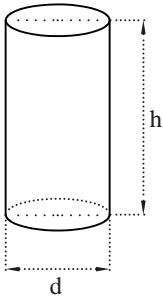
DİKDÖRTGENLER PRİZMASI



Hacim : $V = a \times b \times h$
 Taban Uzunluğu : $a = \frac{V}{b \times h}$
 Yükseklik : $h = \frac{V}{a \times b}$
 Köşegen Uzunluğu : $D = \sqrt{a^2 + b^2 + c^2}$
 Yüzey Alanı : $A = 2 \times ((a \times b) + (b \times h) + (a \times h))$

Örnek: $a = 8 \text{ dm}$ $b = 5 \text{ dm}$ $h = 3 \text{ dm}$ için
 $V = 8 \times 5 \times 3$ $V = 120 \text{ dm}^3$
 $a = \frac{120}{5 \times 3}$ $a = 8 \text{ dm}$
 $h = \frac{120}{8 \times 5}$ $h = 3 \text{ dm}$
 $D = \sqrt{8^2 + 5^2 + 3^2}$ $D = 9,89 \text{ dm}$
 $A = 2 \times ((8 \times 5) + (5 \times 3) + (8 \times 3))$ $A = 158 \text{ dm}^2$

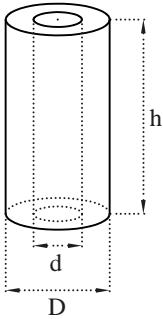
SİLİNDİR



Hacim : $V = \frac{\pi \times d^2}{4} \times h$
 Çap : $d = \sqrt{\frac{4 \times V}{\pi \times h}}$
 Yüzey Alanı : $A = \pi \times d \times (h + \frac{d}{2})$

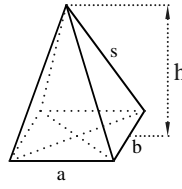
Örnek: $d = 4 \text{ dm}$ $h = 8 \text{ dm}$ için
 $V = \frac{3,14 \times 4^2}{4} \times 8$ $V = 100,48 \text{ dm}^3$
 $d = \sqrt{\frac{4 \times 100,48}{3,14 \times 8}}$ $d = 4 \text{ dm}$
 $A = 3,14 \times 4 \times (8 + \frac{4}{2})$ $A = 125,6 \text{ dm}^2$

DELİK SİLİNDİR



Hacim : $V = \frac{\pi \times h}{4} \times (D^2 - d^2)$
 Dış Çap : $D = \sqrt{\frac{4 \times V}{\pi \times h} + d^2}$
 İç Çap : $d = \sqrt{D^2 - \frac{4 \times V}{\pi \times h}}$
 Yüzey Alanı : $A = \pi \times [(h \times (D + d)) + (\frac{D^2 - d^2}{2})]$
 Örnek: $D = 4 \text{ dm}$ $d = 1 \text{ dm}$ $h = 8 \text{ dm}$ için
 $V = \frac{3,14 \times 8}{4} \times (4^2 - 1^2)$ $V = 94,2 \text{ dm}^3$
 $D = \sqrt{\frac{4 \times 94,2}{3,14 \times 8} + 1^2}$ $D = 4 \text{ dm}$
 $d = \sqrt{4^2 - \frac{4 \times 94,2}{3,14 \times 8}}$ $d = 1 \text{ dm}$
 $A = 3,14 \times [(8 \times (4 + 1)) + (\frac{4^2 - 1^2}{2})]$
 $A = 149,15 \text{ dm}^2$

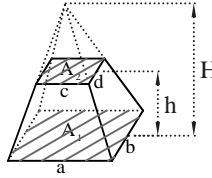
PİRAMİT



Hacim : $V = \frac{a \times b \times h}{3}$
 Ölçüler : $a = \frac{3 \times V}{b \times h}$ $b = \frac{3 \times V}{a \times h}$
 $h = \frac{3 \times V}{a \times b}$ $s = \sqrt{h^2 + \frac{a^2 + b^2}{4}}$
 Yüzey Alanı : $A = a \times \sqrt{\frac{b^2}{4} + h^2} + b \times \sqrt{\frac{a^2}{4} + h^2} + (a \times b)$

Örnek: $a = 5 \text{ dm}$ $b = 3 \text{ dm}$ $h = 10 \text{ dm}$ için
 $V = \frac{5 \times 3 \times 10}{3}$ $V = 50 \text{ dm}^3$
 $a = \frac{3 \times 50}{3 \times 10}$ $a = 5 \text{ dm}$
 $b = \frac{3 \times 50}{5 \times 10}$ $b = 3 \text{ dm}$
 $h = \frac{3 \times 50}{5 \times 3}$ $h = 10 \text{ dm}$
 $s = \sqrt{10^2 + \frac{5^2 + 3^2}{4}}$ $s = 10,42 \text{ dm}$
 $A = 5 \times \sqrt{\frac{3^2}{4} + 10^2} + 3 \times \sqrt{\frac{5^2}{4} + 10^2} + (5 \times 3)$
 $A = 96,54 \text{ dm}^2$

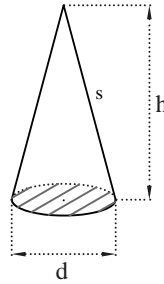
KESİK PİRAMİT



Hacim : $V = \frac{h}{3} \times (A_1 + A_2 + \sqrt{A_1 \times A_2})$
 Yüzey Alanı : $A = (a \times \sqrt{\frac{b^2}{4} + H^2} + b \times \sqrt{\frac{a^2}{4} + H^2}) + (a \times b) - (c \times \sqrt{\frac{d^2}{4} + h^2} + d \times \sqrt{\frac{c^2}{4} + h^2}) + (c \times d)$
 Örnek: $A_1 = 60 \text{ dm}^2$ $a = 10 \text{ dm}$ $b = 6 \text{ dm}$ $H = 18 \text{ dm}$
 $A_2 = 15 \text{ dm}^2$ $c = 5 \text{ dm}$ $d = 3 \text{ dm}$ $h = 9 \text{ dm}$

$V = \frac{9}{3} \times (60 + 15 + \sqrt{60 \times 15})$ $V = 135 \text{ dm}^3$
 $A = (10 \times \sqrt{\frac{6^2}{4} + 18^2} + 6 \times \sqrt{\frac{10^2}{4} + 18^2}) + (10 \times 6) - (5 \times \sqrt{\frac{3^2}{4} + 9^2} + 3 \times \sqrt{\frac{5^2}{4} + 9^2}) + (5 \times 3)$ $A = 295,93 \text{ dm}^2$

KONİ



Hacim : $V = \frac{\pi \times d^2 \times h}{12}$
 Çap : $d = \sqrt{\frac{12 \times V}{\pi \times h}}$
 Yükseklik : $h = \frac{12 \times V}{\pi \times d^2}$
 Yanal Uzunluk : $s = \sqrt{h^2 + \frac{d^2}{4}}$
 Yüzey Alanı : $A = \frac{\pi \times d}{2} \times (s + \frac{\pi \times d}{2})$
 Örnek: $d = 4 \text{ dm}$ $h = 8 \text{ dm}$ için
 $V = \frac{3,14 \times 4^2 \times 8}{12}$ $V = 33,5 \text{ dm}^3$
 $d = \sqrt{\frac{12 \times 33,5}{3,14 \times 8}}$ $d = 4 \text{ dm}$
 $h = \frac{12 \times 33,5}{3,14 \times 4^2}$ $h = 8 \text{ dm}$
 $s = \sqrt{8^2 + \frac{4^2}{4}}$ $s = 8,25 \text{ dm}$
 $A = \frac{3,14 \times 4}{2} \times (8,25 + \frac{3,14 \times 4}{2})$ $A = 91,25 \text{ dm}^2$

Uzunluk Ölçüleri Çevrim Tablosu

Uzunluk Ölçüsü	sembölü	milimetre	santimetre	desimetre
milimetre	mm	1	0,1	0,01
santimetre	cm	10	1	0,1
desimetre	dm	100	10	1

Yüzey Ölçüleri Çevrim Tablosu

Alan Ölçüsü	sembölü	milimetrekare	santimetrekare	desimetrekare
milimetrekare	mm ²	1	0,01	0,0001
santimetrekare	cm ²	100	1	0,01
desimetrekare	dm ²	10.000	100	1