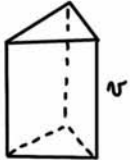


GEOMETRIJSKA TELESA

PRIZMA

- 2 osnovni ploskvi
 - plašči (pl)
- $S = \text{ploščina osnovne ploskve}$
 $\sigma = \text{obseg osnovne ploskve}$



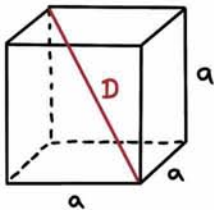
$$P = 2 \cdot S + pl$$

$$V = S \cdot v$$

$$pl = \sigma \cdot v$$



1. KOCKA = enakoroba prizma

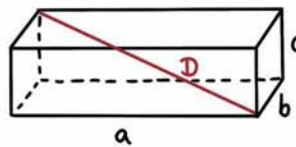


$$P = 6a^2$$

$$V = a^3$$

$$D = a\sqrt{3}$$

2. KVADER



$$P = 2(ab + ac + bc)$$

$$V = abc$$

$$D = \sqrt{a^2 + b^2 + c^2}$$

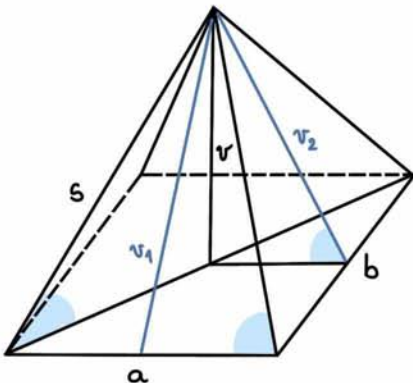
PIRAMIDA

- 1 osnovna ploskev
- plašč sestavljen iz enakokrakih trikotnikov

$$P = S \cdot pl$$

$$V = \frac{1}{3} S v$$

4 - STRANA PIRAMIDA



$$P = ab + ar_1 + br_2$$

$$V = \frac{1}{3} abv$$

$$r_1^2 = v^2 + \left(\frac{b}{2}\right)^2$$

$$r_2^2 = v^2 + \left(\frac{a}{2}\right)^2$$

$$s^2 = r_1^2 + \left(\frac{a}{2}\right)^2$$

$$s^2 = r_2^2 + \left(\frac{b}{2}\right)^2$$

PRAVILNA 4-STRANA PIRAMIDA

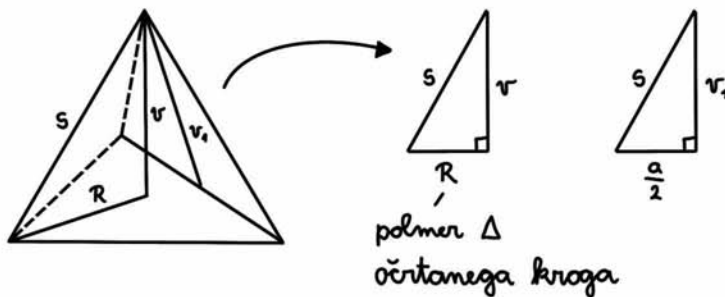
- Osmorna ploskev je kvadrat

$$\begin{aligned}
 S &= a^2 & r_1^2 &= \left(\frac{a}{2}\right)^2 + v^2 \\
 P &= a^2 + 2av_1 & s^2 &= \left(\frac{a}{2}\right)^2 + v_1^2 \\
 V &= \frac{1}{3}a^2v & s^2 &= \frac{a^2}{2} + v^2 \\
 pl &= 2av_1
 \end{aligned}$$

v = višina
 v_1 = stranska višina
 s = stranski rob

3-STRANA PIRAMIDA

znamza5si

$$R = \frac{abc}{4S}$$

① PRAVILNA 3-STRANA PIRAMIDA

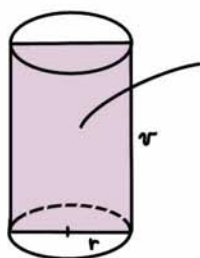
$$\begin{aligned}
 S &= \frac{a^2\sqrt{3}}{4} & P &= \frac{a^2\sqrt{3}}{4} + \frac{3av_1}{2} \\
 pl &= \frac{3av_1}{2} & V &= \frac{a^2\sqrt{3}}{12} \cdot v
 \end{aligned}$$

② TETRAEDER

4 enakostranični Δ

$$\begin{aligned}
 P &= a^2\sqrt{3} \\
 V &= \frac{a^3\sqrt{2}}{12}
 \end{aligned}$$

VALJ



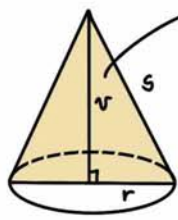
osni preseki je pravokotnik

$$S_0 = 2rv$$

$$\begin{aligned}
 S &= \pi r^2 & P &= 2\pi r^2 + 2\pi r v \\
 \sigma &= 2\pi r & V &= \pi r^2 v \\
 pl &= 2\pi r v
 \end{aligned}$$

ENAKOSTRANIČNI VALJ: $v = 2r$

STOŽEC



osni preseki je
trikotnik

$$S_o = r \cdot v$$

$$S = \pi r^2$$

$$\sigma = 2\pi r$$

$$pl = \pi r s$$

$$s^2 = v^2 + r^2$$

$$P = \pi r^2 + \pi r s$$

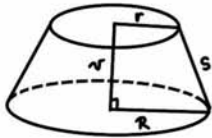
$$V = \frac{1}{3} \pi r^2 v$$

ENAKOSTRANIČNI STOŽEC: $s = 2r$

Središčni kot razgrnjenega plašča

$$\alpha = \frac{360^\circ \cdot r}{s}$$

PRISEKAN STOŽEC



$$s^2 = v^2 + (R-r)^2$$

$$pl = \pi(R+r)s$$

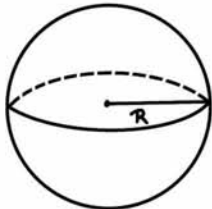
$$P = \pi(R^2 + r^2 + (R+r)s)$$

$$V = \frac{1}{3} \pi v (R^2 + Rr + r^2)$$

ZNAMZA5SI



KROGLA



$$P = 4\pi R^2$$

$$V = \frac{4\pi R^3}{3}$$

POLKROGLA: $P = 3\pi R^2$

$$V = \frac{2\pi R^3}{3}$$