

ZN2 / str 129 / mol 16

G. leden

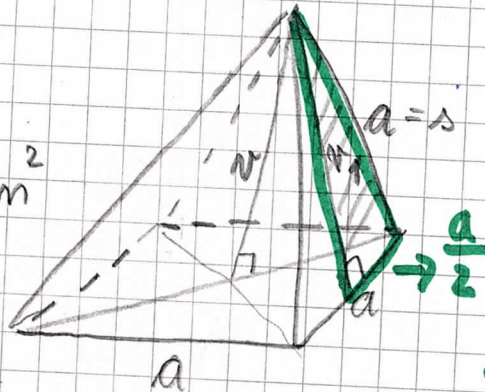
ENAKOROBA 4-strana piramida:

a = 20 cm

pl = 400√3 cm

P = 400(1+√3) cm²

σ = 400 cm²



σ = a²

σ = 20²

σ = 400 cm²

pl = 4 · $\frac{a \cdot v_1}{2}$

pl = $\frac{4 \cdot 20 \cdot 10\sqrt{3} \cdot 10}{2 \cdot 1}$

pl = 400√3 cm²

v₁² = a² - ($\frac{a}{2}$)²

v₁² = 20² - 10²

v₁² = 400 - 100

v₁² = 300

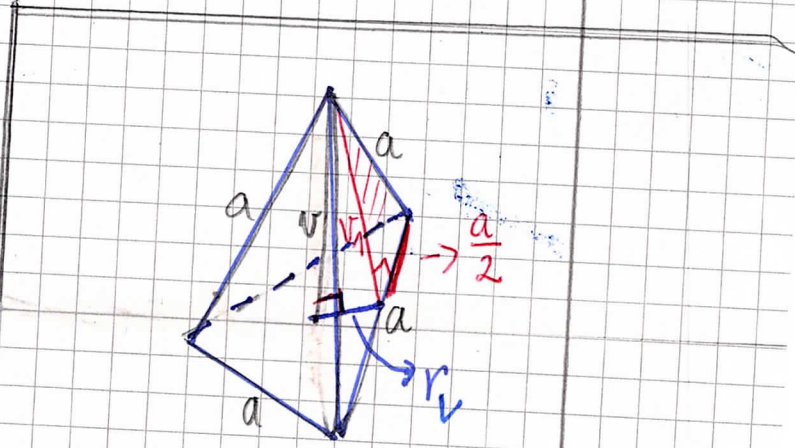
v₁ = √300 = √3 · 100

v₁ = 10√3 cm

P = σ + pl

P = 400 + 400√3

P = 400(1+√3) cm²



ZN2 / str 132 / mol 34

ENAKOROBA 3-strana piramida

a = 10 dm

P = 100√3 dm²

V =

σ = 25√3 dm²

pl = 75√3 dm²

v₁ = 5√3 dm

$V = \frac{\sigma \cdot v}{3}$

(drugi list)

P = σ + pl

P = 25√3 + 75√3

P = 100√3 dm²

v₁² = a² - ($\frac{a}{2}$)²

v₁² = 100 - 25

v₁² = 75

v₁ = √75 = √25 · 3

v₁ = 5√3 dm

σ = $\frac{a^2 \sqrt{3}}{4}$

σ = $\frac{100\sqrt{3} \cdot 25}{4 \cdot 1}$

σ = 25√3 dm²

pl = 3 · $\frac{a \cdot v_1}{2}$

pl = $\frac{3 \cdot 10 \cdot 5\sqrt{3} \cdot 5}{2 \cdot 1}$

pl = 75√3 dm²

racunanje visme je na drugem listu

v_v = $\frac{a\sqrt{3}}{6}$

v_v = $\frac{10\sqrt{3}}{6}$

v_v = $\frac{5\sqrt{3}}{3}$

RAČUNANJE PROSTORNINE

(težka naloga)

$$\underline{N^2} = N_1^2 - N_v^2 \quad N_v = \frac{a\sqrt{3}}{6} = \frac{10\sqrt{3}}{6} = \underline{\underline{\frac{5\sqrt{3}}{3}}}$$

$$N^2 = (5\sqrt{3})^2 - \left(\frac{5\sqrt{3}}{3}\right)^2$$

$$N^2 = 25 \cdot 3 - \frac{25 \cdot 3}{9}$$

$$N^2 = 75 - \frac{75}{9} \quad (\text{skupni imenovalci})$$

$$N^2 = \frac{675 - 75}{9}$$

$$N^2 = \frac{600}{9}$$

$$N = \sqrt{\frac{600}{9}} = \frac{\sqrt{600}}{\sqrt{9}} = \frac{\sqrt{6 \cdot 100}}{3}$$

$$\underline{N = \frac{10\sqrt{6}}{3} \text{ dm}}$$

$$V = \frac{O \cdot h}{3}$$

$$V = \frac{25\sqrt{3} \cdot \frac{10\sqrt{6}}{3}}{3} = \frac{\frac{25\sqrt{3} \cdot 10\sqrt{6}}{3}}{3} = \frac{250\sqrt{18}}{9} =$$

$$= \frac{250 \cdot \sqrt{2 \cdot 9}}{9} = \frac{250 \cdot 3 \cdot \sqrt{2} \cdot 1}{9 \cdot 3} = \frac{250\sqrt{2}}{3} \text{ dm}^3$$