2. URA UČBENIK str. 177 3. teden

nal 2/ u str. 177

a) KVADER ali PRAVILNA 4-STRANA PRIZMA

$a = 8\,cm$

$v = 2\,dm = 20\,cm$

b) $O = 64\,cm^2$

c) $pl = 640\,cm^2$

č) $P = 768\,cm^2$

d) $V = 1{,}28\,l$

$1\,dm^3 = 1\,l$

b) $O = a^2$

$O = 8^2$

$O = 64\,cm^2$

c) $pl = o \cdot v$

$pl = 4 \cdot a \cdot v$

$pl = 4 \cdot 8 \cdot 20$

$pl = 640\,cm^2$

č) $P = 2 \cdot O + pl$

$P = 2 \cdot 64 + 640$

$P = 128 + 640$

$P = 768\,cm^2$

d) $V = O \cdot v$

$V = 64 \cdot 20$

$V = 1280\,cm^3$

$V = 1{,}28\,dm^3$

O/str. 177 **nal 3** a) 3-STRANA PRIZMA (O = pravokotni $\triangle$)

KATETI $\begin{cases} k_1 = 5\,cm \\ k_2 = 12\,cm \end{cases}$

$v = 30\,cm$

b) osnovna ploskev je pravokotni trikotnik

c) $O = 30\,cm^2$

č) $P = 960\,cm^2$

d) $V = 900\,cm^3$

c) $O = \frac{k_1 \cdot k_2}{2}$

$O = \frac{5 \cdot 12 \cdot 6}{2 \cdot 1}$

$O = 30\,cm^2$

č) $P = 2 \cdot O + pl$

$P = 2 \cdot 30 + 900$

$P = 960\,cm^2$

h = hipotenuza $\triangle$

$h = 13\,cm$

$pl = 900\,cm^2$

$pl = O \cdot v$ ← obseg $\triangle$

$pl = (k_1 + k_2 + h) \cdot v$

$pl = (5 + 12 + 13) \cdot 30$

$pl = 30 \cdot 30$

$pl = 900\,cm^2$

$h^2 = k_1^2 + k_2^2$

$h^2 = 5^2 + 12^2$

$h^2 = 25 + 144$

$h^2 = 169$

$h = \sqrt{169}$

$h = 13\,cm$

d) $V = O \cdot v$

$V = 30 \cdot 30$

$V = 900\,cm^3$

U/str. 177/ **nal 4**

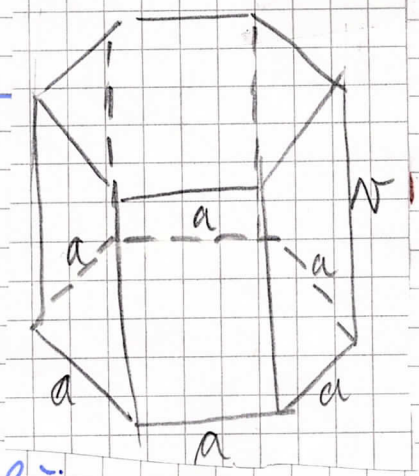
PRAVILNA 6-STRANA PRIZMA

$a = 8\,cm$

$pl = 720\,cm^2$ ← obseg

a) $v = 15\,cm$

b) VSOTA VSEH ROBOV



$pl = O \cdot v$

$pl = 6 \cdot a \cdot v$

$720 = 6 \cdot 8 \cdot v$

$720 = 48 \cdot v$

$v = 720 : 48$

$v = 15\,cm$

720 : 48 = 15
240
=

b) VSOTA ROBOV:

$12 \cdot a + 6 \cdot v =$

$= 12 \cdot 8 + 6 \cdot 15 =$

$= 96 + 90 =$

$= 186\,cm$

Skupna dolžina vseh robov meri 186 cm.

U/ str. 177/ **nal 5**

PRAVILNA 4-STRANA PIRAMIDA

$a = 16\,cm$

$v = 15\,cm$

a) $V = 1280\,cm^3$

b) $P = 800\,cm^2$

c) $p = 60\,cm^2$

č) $p_{\triangle ACV} = 120\sqrt{2}\,cm^2$

$O = 256\,cm^2$

$v_1 = 17\,cm$

$pl = 544\,cm^2$

a) $V = \frac{O \cdot v}{3}$

$V = \frac{256 \cdot 15 \cdot 5}{3 \cdot 1}$

$V = 1280\,cm^3$

$O = a^2$

$O = 16^2$

$O = 256\,cm^2$

$P = O + pl$

$P = 256 + 544$

$P = 800\,cm^2$

$pl = 4 \cdot \frac{a \cdot v_1}{2}$

$pl = \frac{4 \cdot 16 \cdot 17 \cdot 8}{2 \cdot 1}$

$pl = 544\,cm^2$

$v_1^2 = v^2 + \left(\frac{a}{2}\right)^2$

$v_1^2 = 15^2 + 8^2$

$v_1^2 = 225 + 64$

$v_1^2 = 289$

$v_1 = \sqrt{289}$

$v_1 = 17\,cm$

32 · 17
32
224
544

c) $p =$ ploščina pravokotnih $\triangle$ s stranicami v, $\frac{a}{2}$, v_1 (kateti)

$p = \frac{v \cdot \frac{a}{2}}{2}$

$p = \frac{15 \cdot 8 \cdot 4}{2 \cdot 1} = 60\,cm^2$ → ploščina označenega $\triangle$

č) $\triangle ACV$ stranice d, s, s enakokraki $\triangle$

$p_{\triangle ACV} = \frac{d \cdot v}{2}$

$d = a\sqrt{2}$

$d = 16\sqrt{2}$

$p_{\triangle ACV} = \frac{16\sqrt{2} \cdot 15 \cdot 8}{2 \cdot 1}$

$p_{\triangle ACV} = 120\sqrt{2}\,cm^2$