

Dragi moji,

nastavljamo dalje s piramidama...

Nadam se da vam zadaci od prošlog sata nisu bili teški i da nema pitanja vezano uz njih.

Stavljam rješenja tih zadataka.

ZADACI

1. $a = 20 \text{ dm}$
 $b = 26 \text{ cm}$ **GREŠKA!! DM**

$O = ?$

$O = B + P$

$O = 400 + 960$

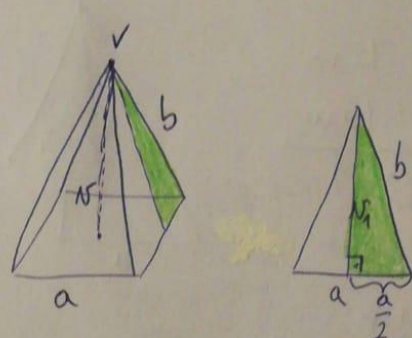
$O = 1360 \text{ dm}^2$

$B = a^2$
 $B = 20^2$
 $B = 400 \text{ dm}^2$

$P = \frac{2}{4} \cdot \frac{a \cdot \nu_1}{z_1}$

$P = 2 \cdot 20 \cdot 24$
 $P = 960 \text{ dm}^2$

$b^2 = \nu_1^2 + \left(\frac{a}{2}\right)^2$
 $\nu_1^2 = b^2 - \left(\frac{a}{2}\right)^2$
 $\nu_1^2 = 26^2 - \left(\frac{20}{2}\right)^2$
 $\nu_1^2 = 676 - 100$
 $\nu_1^2 = 576 / \sqrt{\quad}$
 $\nu_1 = 24 \text{ dm}$



2. $a = 16 \text{ cm}$
 $\nu = 6 \text{ cm}$

$O = ?$

$O = B + P$

$O = 256 + 320$

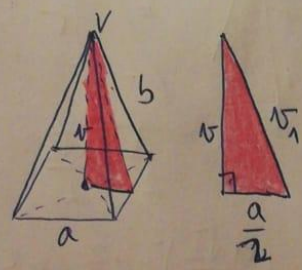
$O = 576 \text{ cm}^2$

$B = a^2$
 $B = 16^2$
 $B = 256 \text{ cm}^2$

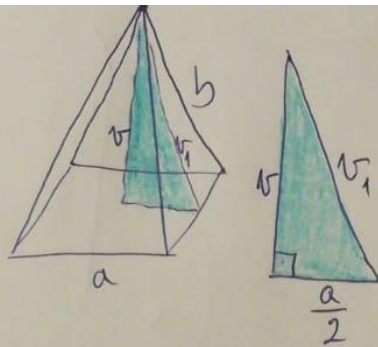
$P = \frac{2}{4} \cdot \frac{a \cdot \nu_1}{z_1}$

$P = 2 \cdot 16 \cdot 10$
 $P = 320 \text{ cm}^2$

$\nu_1^2 = \nu^2 + \left(\frac{a}{2}\right)^2$
 $\nu_1^2 = 6^2 + \left(\frac{16}{2}\right)^2$
 $\nu_1^2 = 36 + 64$
 $\nu_1^2 = 100 / \sqrt{\quad}$
 $\nu_1 = 10 \text{ cm}$



3. $r = 12 \text{ m}$
 $r_1 = 15 \text{ m}$
 $O = ?$



$$B = a^2$$

$$\underline{B = 324 \text{ m}^2}$$

$$P = 4 \cdot \frac{a \cdot r_1}{2}$$

$$P = 2 \cdot 18 \cdot 15$$

$$\underline{P = 540 \text{ m}^2}$$

$$O = B + P$$

$$O = 324 + 540$$

$$\underline{O = 864 \text{ m}^2}$$

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

$$\left(\frac{a}{2}\right)^2 = r_1^2 - r^2$$

$$\left(\frac{a}{2}\right)^2 = 15^2 - 12^2$$

$$\left(\frac{a}{2}\right)^2 = 225 - 144$$

$$\left(\frac{a}{2}\right)^2 = 81 / 5$$

$$\frac{a}{2} = 9 / 2$$

$$\underline{a = 18 \text{ m}}$$

4. $r = 24 \text{ cm}$
 $b = 26 \text{ cm}$
 $O = ?$

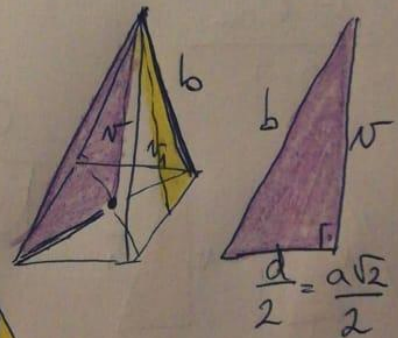
$$B = a^2$$

$$\underline{B = 200 \text{ cm}^2}$$

$$P = 2 \cdot a \cdot r_1$$

$$P = 2 \cdot 10\sqrt{2} \cdot \sqrt{626}$$

$$\underline{P = 40\sqrt{313} \text{ cm}^2}$$



$$\frac{a}{2} = \frac{a\sqrt{2}}{2}$$

$$\left(\frac{a\sqrt{2}}{2}\right)^2 = b^2 - r^2$$

$$\left(\frac{a\sqrt{2}}{2}\right)^2 = 100 / 5$$

$$\frac{a\sqrt{2}}{2} = 10 / 2$$

$$a\sqrt{2} = 20 / \sqrt{2}$$

$$a = \frac{20\sqrt{2}}{2}$$

$$\underline{a = 10\sqrt{2} \text{ cm}}$$

$$O = B + P$$

$$\underline{O = 200 + 40\sqrt{313} \text{ cm}^2}$$

$$r_1^2 = b^2 - \left(\frac{a}{2}\right)^2$$

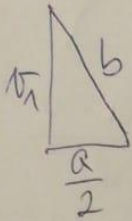
$$r_1^2 = 26^2 - (5\sqrt{2})^2$$

$$r_1^2 = 626 / 5$$

$$r_1 = \sqrt{626} \text{ cm}$$

5. $b = 17 \text{ cm}$
 $v_1 = 1.5 \text{ dm} = 15 \text{ cm}$

$O = ?$



$$\left(\frac{a}{2}\right)^2 = b^2 - v_1^2$$

$$\left(\frac{a}{2}\right)^2 = 64/v$$

$$\frac{a}{2} = 8/\cdot 2$$

$$\underline{a = 16 \text{ cm}}$$

$$B = a^2$$

$$\underline{B = 256 \text{ cm}^2}$$

$$P = 2 \cdot a \cdot v_1$$

$$P = 2 \cdot 16 \cdot 15$$

$$\underline{P = 480 \text{ cm}^2}$$

$$O = B + P$$

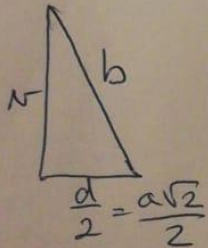
$$O = 256 + 480$$

$$\underline{\underline{O = 736 \text{ cm}^2}}$$

6. $v = 15 \text{ cm}$

$$b = 45 \text{ cm}$$

$V = ?$



$$\left(\frac{a\sqrt{2}}{2}\right)^2 = b^2 - v^2$$

$$\left(\frac{a\sqrt{2}}{2}\right)^2 = 1800/v$$

$$\frac{a\sqrt{2}}{2} = 30\sqrt{2}/\cdot 2$$

$$a\sqrt{2} = 60\sqrt{2} / : \sqrt{2}$$

$$\underline{a = 60 \text{ cm}}$$

$$V = \frac{1}{3} B \cdot v$$

$$V = \frac{1}{3} a^2 \cdot v$$

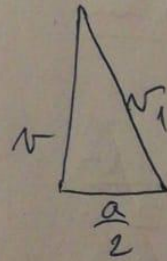
$$V = \frac{1}{3} \cdot 60^2 \cdot 15$$

$$\underline{\underline{V = 18000 \text{ cm}^3}}$$

7. $v = 35 \text{ cm}$

$$v_1 = 37 \text{ cm}$$

$V = ?$



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

$$\left(\frac{a}{2}\right)^2 = 144/v$$

$$\frac{a}{2} = 12/\cdot 2$$

$$\underline{a = 24 \text{ cm}}$$

$$V = \frac{1}{3} B \cdot v$$

$$V = \frac{1}{3} a^2 \cdot v$$

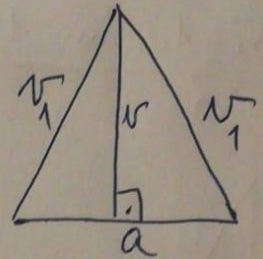
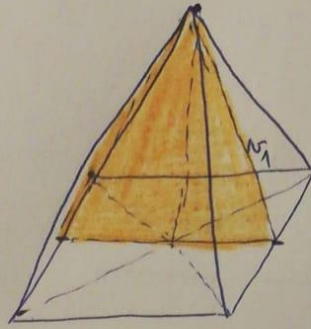
$$\underline{\underline{V = 6720 \text{ cm}^3}}$$

BONUS ZADACI

2. $a = 1 \text{ dm} = 10 \text{ cm}$

$v = 12 \text{ cm}$

$P_p = ?$



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

$$P_p = \frac{10 \cdot 12}{2}$$

$$P_p = 60 \text{ cm}^2$$

3. $B = 25 \text{ cm}^2$

$v = 3.1 \text{ cm}$

$P_p = ?$

(ista slika ↑)

$$B = 25 \text{ cm}^2 = \Delta a = 5 \text{ cm}$$

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

$$P_p = \frac{5 \cdot 3.1}{2}$$

$$P_p = 7.75 \text{ cm}^2$$

Sada kada ste provjerali rješenja, otvorite bilježnice i udžbenike.

Otvorite udžbenik na stranici 145 i pročitajte tekst pod naslovom „Pravilna uspravna trostrana piramida“.

- nacrtaj pravilnu uspravnu trostranu piramidu i označi joj sve stranice
- precrtaj mrežu piramide
- zapiši sve pripadne formule
- prepisi dva žuta pravila sa stranice 146
- zapiši rečenicu

„**Jednakostranična trostrana piramida** – ima sve bridove jednakih duljina i sve strane sukladne, naziva se **pravilni tetraedar**“

Otvorite udžbenik na stranici 147 i pročitajte tekst pod naslovom „*Pravilna uspravna šesterostrana piramida*“.

- nacrtaj pravilnu uspravnu šesterostranu piramidu i označi joj sve stranice
- precrtaj mrežu piramide sa stranice 148
- zapiši sve pripadne formule
- prepisi žuto pravilo sa stranice 148

Nešto više o pravilnoj trostranoj i šesterostranoj piramidi imate zapisano na ovim prezentacijama

- Trostrana - https://carnet-my.sharepoint.com/:p:/g/personal/maja_bibic_skole_hr/EYpNBmnF3HtLqic1DMSyZWUB9PHTwayznwWaX27RbKmVQw?e=5SUmEQ
- Šesterostrana - https://carnet-my.sharepoint.com/:p:/g/personal/maja_bibic_skole_hr/Eb0OIBj_wsdOkW9wJVkih7UB6rfmbzKwA75cQNw5nH2TDA?e=HQqvXg

To bi bilo to za danas.

Trebate završiti zadatak do utorka u 9h.

Ako ima pitanja, slobodno pitajte!

Sretno!

Vaša,

Maja B.