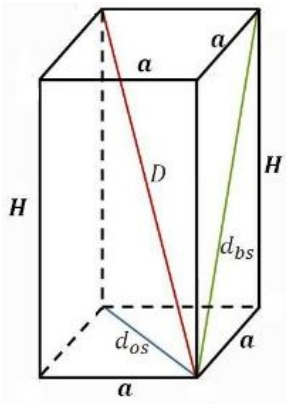
Вежбање 10.12.20.

276.

$B = 36cm^2$
$d_{bs} = 10cm$
$P = ?$
$a^2 = B$
$a^2 = 36cm^2$
$a = \sqrt{36cm^2}$
$a = 6cm$
$H^2 = d_{bs}^2 - a^2$

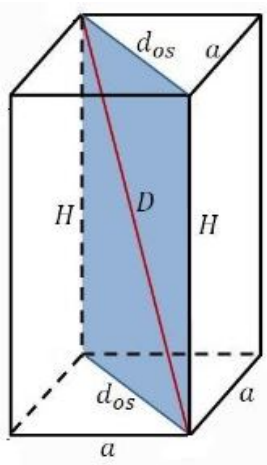
$H^2 = (10cm)^2 - (6cm)^2$
$H = \sqrt{64cm^2}$
$H = 8cm$
$P = 2B + M$
$P = 2 \cdot 36cm^2 + 4 \cdot a \cdot H$
$P = 72cm^2 + 4 \cdot 6cm \cdot 8cm$
$P = 72cm^2 + 192cm^2$
$P = 264cm^2$



281.

$H = 10cm$
$P_{dp} = 60\sqrt{2}cm^2$
$P = ?$
$d_{os} \cdot H = P_{dp}$
$d_{os} = P_{dp} : H$
$d_{os} = 60\sqrt{2}cm^2 : 10cm$
$d_{os} = 6\sqrt{2}cm$
$a\sqrt{2} = d_{os}$

$a\sqrt{2} = 6\sqrt{2}cm \quad / : \sqrt{2}$
$a = 6cm$
$P = 2B + M$
$P = 2a^2 + 4aH$
$P = 2 \cdot (6cm)^2 + 4 \cdot 6cm \cdot 10cm$
$P = 2 \cdot 36cm^2 + 240cm^2$
$P = 72cm^2 + 240cm^2$
$P = 312cm^2$



282. а)

$M = 120cm^2$
$P = 170cm^2$
$H = ?$
$P = 2B + M$
$2B = P - M$
$2B = 170cm^2 - 120cm^2$

$2B = 50cm^2$
$B = 25cm^2$
$a^2 = B$
$a^2 = 25cm^2$
$a = 5cm$

$4aH = M$
$4 \cdot 5cm \cdot H = 120cm^2$
$20cm \cdot H = 120cm^2$
$H = 120cm^2 : 20cm$
$H = 6cm$

284.

$D = 3{,}5cm$

$d = 2{,}5cm$

$P = ?$

ΔDBD_1 :

$H^2 = D^2 - d_{os}^2$

$d_{os} = a\sqrt{2}$

$H^2 = D^2 - \left(a\sqrt{2}\right)^2$

$H^2 = D^2 - 2a^2$ *(1)*

ΔCBC_1 :

$H^2 = d_{bs}^2 - a^2$ *(2)*

Из *(1)* и *(2)* следи:

$D^2 - 2a^2 = d_{bs}^2 - a^2$

$D^2 - d_{bs}^2 = 2a^2 - a^2$

$D^2 - d_{bs}^2 = a^2$

$(3{,}5cm)^2 + (2{,}5cm)^2 = a^2$

$12{,}25cm^2 - 6{,}25cm^2 = a^2$

$a^2 = 6cm^2$

$a = \sqrt{6}cm$

$H^2 = d_{bs}^2 - a^2$

$H^2 = (2{,}5cm)^2 - \left(\sqrt{6}cm\right)^2$

$H^2 = 6{,}25cm^2 - 6cm^2$

$H^2 = 0{,}25cm^2$

$H = 0{,}5cm$

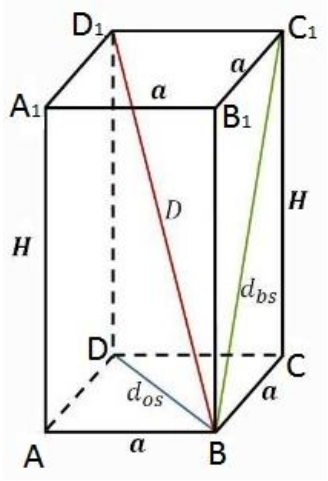
$P = 2B + M$

$P = 2a^2 + 4aH$

$P = 2\left(\sqrt{6}cm\right)^2 + 4 \cdot \sqrt{6}cm \cdot 0{,}5cm$

$P = 2 \cdot 6cm^2 + 2\sqrt{6}cm^2$

$P = 2(6cm^2 + \sqrt{6})cm^2$



297.

$d_{bs} = 10cm$

$h = 3\sqrt{3}cm$

$P = ?$

$\frac{a\sqrt{3}}{2} = h$

$\frac{a\sqrt{3}}{2} = 3\sqrt{3}cm \quad /\cdot 2$

$a\sqrt{3} = 6\sqrt{3}cm \quad /:\sqrt{3}$

$a = 6cm$

$H^2 = d_{bs}^2 - a^2$

$H^2 = (10cm)^2 - (6cm)^2$

$H^2 = 64cm^2$

$H = 8cm$

$P = 2B + M$

$P = 2 \cdot \frac{a^2\sqrt{3}}{4} + 3aH$

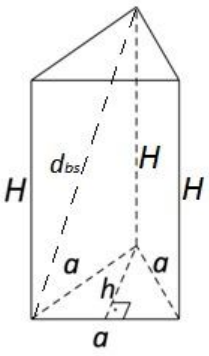
$P = \frac{a^2\sqrt{3}}{2} + 3aH$

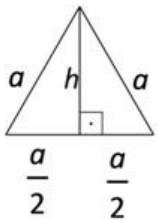
$P = \frac{(6cm)^2\sqrt{3}}{2} + 3 \cdot 6cm \cdot 8cm$

$P = \frac{36cm^2\sqrt{3}}{2} + 144cm^2$

$P = 18\sqrt{3}cm^2 + 144cm^2$

$P = 18(\sqrt{3} + 8)cm^2$





Подсећање:

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

$h^2 = a^2 - \frac{a^2}{4}$

$h^2 = \frac{4a^2}{4} - \frac{a^2}{4}$

$h^2 = \frac{3a^2}{4}$

$h = \sqrt{\frac{3a^2}{4}}$

$h = \frac{a\sqrt{3}}{2}$

301.

$B = 9\sqrt{3}cm^2$

$H = 4a$

$P = ?$

$\frac{a^2\sqrt{3}}{4} = B$

$\frac{a^2\sqrt{3}}{4} = 9\sqrt{3}cm^2 \quad /\cdot 4$

$a^2\sqrt{3} = 36\sqrt{3}cm^2 \quad /:\sqrt{3}$

$a^2 = 36cm^2$

$a = 6cm$

$H = 4a = 4 \cdot 6cm$

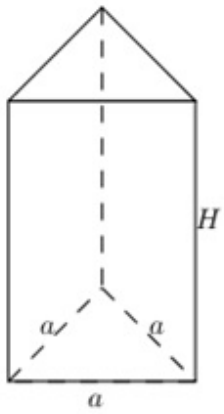
$H = 24cm$

$P = 2B + M$

$P = 2 \cdot 9\sqrt{3}cm^2 + 3aH$

$P = 18\sqrt{3}cm^2 + 3 \cdot 6cm \cdot 24cm$

$P = 18(\sqrt{3} + 24)cm^2$



306.

$H = 12cm$

$a = 6cm$

$b = 8cm$

$P = ?$

$c^2 = a^2 + b^2$

$c^2 = (6cm)^2 + (8cm)^2$

$c^2 = 100cm^2$

$c = 10cm$

$B = \frac{a \cdot b}{2}$ (површина правоуглог троугла)

$B = \frac{6cm \cdot 8cm}{2}$

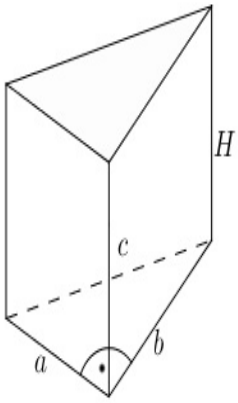
$B = 24cm^2$

$M = aH + bH + cH$

$M = 6cm \cdot 12cm + 8cm \cdot 12cm + 10cm \cdot 12cm$

$M = 288cm^2$

$P = 2B + M$

$P = 2 \cdot 24cm^2 + 288cm^2$

$P = 336cm^2$