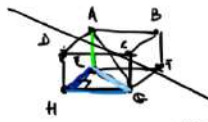
Lezione 23




$\overline{EH} = 18\,cm$

$\overline{HG} = \frac{6}{5}\,\overline{EH}$

$S_T = 1860\,cm^2$

$\overline{DH} = ?$

$\overline{AG} = ?$

$\overline{HG} = \frac{6}{5}\,\overline{EH} = 18cm \cdot \frac{6}{5} = 21,6cm$

$A_b = \overline{EH} \cdot \overline{HG} = 18 \cdot 21,6\,cm^2 = 388,8\,cm^2$

$S_l = S_T - 2A_b = 1860cm^2 - 2 \cdot 388,8cm^2 = 1082,4\,cm^2$

$S_l = 2P_{base} \cdot \overline{DH}$

$2P_{BASE} = 2 \cdot \overline{EH} + 2 \cdot \overline{HG} = 2 \cdot 18\,cm + 2 \cdot 21,6cm = 36\,cm + 43,2\,cm = 79,2cm$

$\overline{DH} = \frac{S_l}{2P_{base}} = \frac{1082,4cm^2}{79,2\,cm} = 13,\overline{6}$

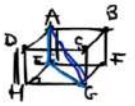
$\overline{DH} = \overline{AE}$

$\overline{AG} = \sqrt{\overline{AE}^2 + \overline{EG}^2}$ = . — .

$\overline{EG} = \sqrt{\overline{EH}^2 + \overline{HG}^2} = \sqrt{324cm^2 + (21,6cm)^2}$

$= \sqrt{324cm^2 + 466,56cm^2} = \sqrt{790,56cm^2}$

$= 28,11$




$\overline{HG} = 18\,cm$

$\overline{HG} = \frac{6}{5}\overline{EH}$

$\overline{EH} = \frac{5}{6}\overline{HG}$

$S_T = 1860\,cm^2$

$\overline{DH} = ?$ $\overline{AG} = ?$

$\overline{EH} = \frac{5}{6} \cdot \overline{HG} = \frac{5}{6} \cdot 18\,cm = 15\,cm$

$A_B = \overline{EH} \cdot \overline{HG} = 15\,cm \cdot 18\,cm = 270\,cm^2$

$2p_{Base} = 2 \cdot \overline{EH} + 2 \cdot \overline{HG} = 2 \cdot 15\,cm + 2 \cdot 18\,cm = 30\,cm + 36\,cm = 66\,cm$

$S_l = S_T - 2A_B = 1860\,cm^2 - 2 \cdot 270\,cm^2 =$

$= 1860\,cm^2 - 1320\,cm^2 = 540\,cm^2$

$S_l = 2p_{BASE} \cdot \overline{DH}$

$\overline{DH} = \frac{S_l}{2p_{BASE}} = \frac{540\,cm^2}{66\,cm} = 8,18\,cm$

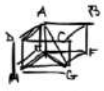
$\overline{DH} = \overline{AE}$

$\overline{EG} = \sqrt{\overline{EH}^2 + \overline{HG}^2} = \sqrt{225\,cm^2 + 324\,cm^2} = \sqrt{549\,cm^2} \approx 23,43\,cm$

$\overline{AG} = \sqrt{\overline{AE}^2 + \overline{EG}^2} = \sqrt{(8,18\,cm)^2 + (23,43\,cm)^2}$

$= \sqrt{66,940\,cm^2 + 548,96\,cm^2} = \sqrt{615,9\,cm^2}$

$\simeq 24,81\,cm$




$2P_{baze} = 56cm$

$\overline{EH} = \frac{3}{4}\overline{HG}$

$\overline{DH} = 21\,cm$

$\overline{AG} = ?$

$S_t = ?$

$V = ?$

$\overline{HG} = x$

$\overline{EH} = \frac{3}{4}\overline{HG}$

$\overline{EH} = \frac{3}{4}x$

$2P_{baze} = 2\cdot\overline{EH} + 2\cdot\overline{HG} = 56cm$

$2\cdot\left(\frac{3}{4}x\right) + 2\cdot x = 56cm$

$\frac{3}{2}x + 2x = 56cm$

$\frac{3x + 4x}{2} = \frac{112cm}{2}$

$7x = 112cm$

$x = \frac{112cm}{7} = 16cm$

$\overline{HG} = 16cm$

$\overline{EH} = \frac{3}{4}\overline{HG} = \frac{3}{4}\cdot 16cm = 12cm$

$A_b = \overline{HG}\cdot\overline{EH} = 16cm\cdot 12cm = 192cm^2$

$S_t = S_l + 2A_b = 2P_{baze}\cdot\overline{DH} + 2A_b =$

$= 56cm\cdot 21cm + 2\cdot 192cm^2 = 1176cm^2 + 1020cm^2 =$

$= 1560cm^2$

$V = 2A_b\cdot\overline{DH} = 1920cm^2\cdot 21cm = 4032cm^3$

$\overline{EG} = \sqrt{\overline{EH}^2 + \overline{HG}^2} = \sqrt{256cm^2 + 144cm^2}$

$= \sqrt{400cm^2} = 20cm$

$\overline{AE} = \overline{DH}$

$\overline{AG} = \sqrt{\overline{AE}^2 + \overline{EG}^2} = \sqrt{441cm^2 + 400cm^2}$

$= \sqrt{841cm^2} = 29cm$