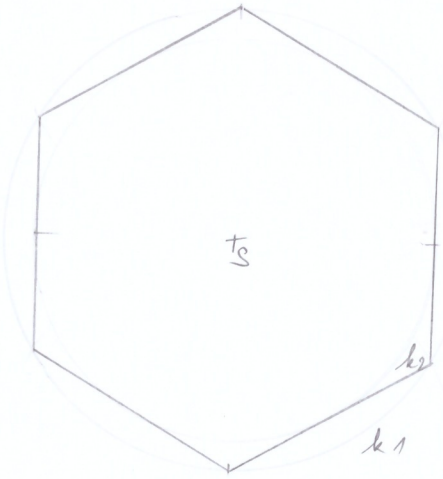
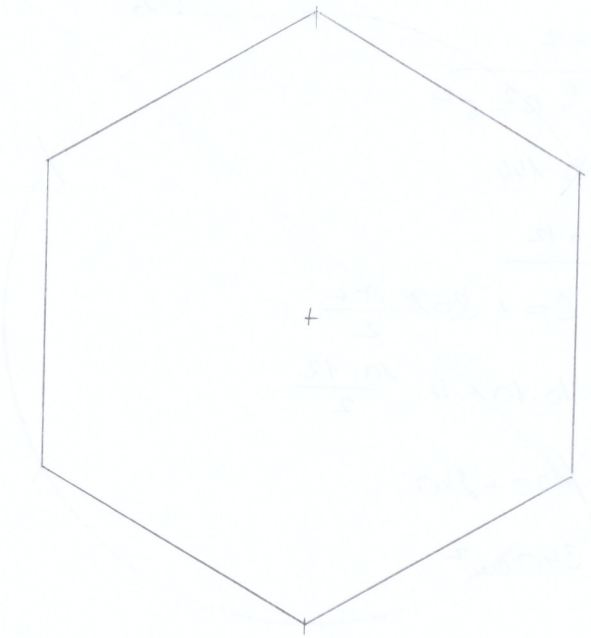
M9

152/3 a)



152/4 b)



153/9 $a = 8\,cm$

$r = 2\,cm$

$V = ?$

$S = 2$

$V = S_p \cdot r$

$V = \frac{a \cdot r_a}{2} \cdot 6 \cdot r$

$V = \frac{8 \cdot 6,9}{2} \cdot 6 \cdot 2$

$V = 331,2\,cm^3$

$r^2 = 8^2 - 4^2$

$r^2 = 64 - 16$

$r^2 = 48$

$r = 6,9\,cm$

$S = 2S_p + S_{pl}$

$S = 2 \cdot 165,6 + 8 \cdot 6 \cdot 2$

$S = 427,2\,cm^2$

153/11 $V = 32\,cm^3$

$S_{pl} = 2S_p$

$V = a \cdot a \cdot \frac{a}{2}$

$32 \cdot 2 = a^3$

$64 = a^3$

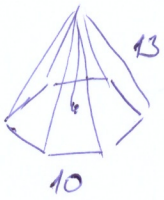
$a = 4$ $\quad r = 2$

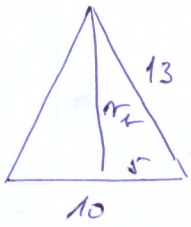
158/5

$a = 10\,cm$

$h = 13\,cm$

$S = ?$





$h_t^2 = 13^2 - 5^2$

$h_t^2 = 169 - 25$

$h_t = \sqrt{144}$

$h_t = 12\,cm$

$r^2 = 10^2 - 5^2$

$r^2 = 100 - 25$

$r = \sqrt{75}$

$r = 8,7$

$S = S_p + 6 \cdot \frac{a \cdot h_t}{2}$

$S = 6 \cdot \frac{a \cdot r_a}{2} + 6 \frac{a \cdot h_t}{2}$

$S = 3 \cdot 10 \cdot 8,7 + 3 \cdot 10 \cdot 12$

$S = 621\,cm^2$

158/6

$a = 5\,cm$

$r = 8\,cm$

$V = ?$

$V = \frac{1}{3} S_p \cdot r$

$V = \frac{1}{3} \cdot \frac{5 \cdot 4,3}{2} \cdot 8$

$V = 28,6 \doteq 29\,cm^3$

$r_a^2 = 5^2 - 2,5^2$

$r_a^2 = 25 - 6,25$

$r_a = \sqrt{18,75}$

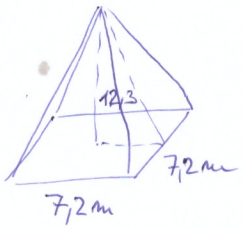
$r_a = 4,3\,cm$

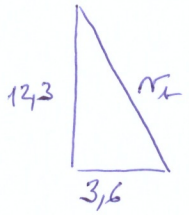
158/7 $V = 212\,m^3$

$a = 7,2\,m$

$r = ?$

$S = ?$





$V = \frac{1}{3} S_p \cdot r$

$212 = \frac{1}{3} \cdot 7,2 \cdot 7,2 \cdot r$

$r = \frac{212}{\frac{1}{3} \cdot 7,2 \cdot 7,2}$

$r = 12,3\,m$

$S = S_p + S_{pl}$

$S = 7,2 \cdot 7,2 + 4 \cdot \frac{7,2 \cdot 12,8}{2}$

$S = 236,2\,m^2$

$h_t^2 = 12,3^2 + 3,6^2$

$h_t^2 = 151,29 + 12,96$

$h_t = \sqrt{164,25}$

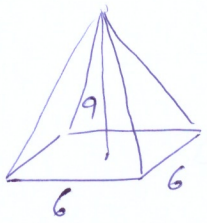
$h_t = 12,8$

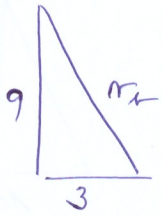
158/8

$r = 9m$

$a = 6m$

$S = ?$





$S = 4 \cdot \frac{a \cdot r_t}{2}$

$S = 2 \cdot 6 \cdot 9,5$

$S = 114 m^2$

$r_t^2 = 9^2 + 3^2$

$r_t^2 = 81 + 9$

$r_t = \sqrt{90}$

$r_t = 9,5 m$

$S + 5\% = 119,7 m^2 \doteq 120 m^2$