

11.9

0.6

16/1/3

$k = 15 \text{ cm}$

$r = 20 \text{ cm}$

$g = ?$

$V = ?$



$s^2 = r^2 + k^2$

$s^2 = 20^2 + 15^2$

$s = \sqrt{625}$

$s = 25 \text{ cm}$

$S = \pi k (k + s) = \pi \cdot 15 (15 + 25) = 1884 \text{ cm}^2$

$V = \frac{1}{3} S_p \cdot r = \frac{1}{3} \pi k^2 r = \frac{1}{3} \pi \cdot 15^2 \cdot 20 = 4712 \text{ cm}^3$

16/1/4 a) $k = 2,4 \text{ m}$

$r = 5,5 \text{ m}$

$g = ?$

$V = ?$

$s^2 = k^2 + r^2$

$s = \sqrt{2,4^2 + 5,5^2}$

$s = 6$

$S = \pi k (k + s) = \pi \cdot 2,4 (2,4 + 6) = 63,3 \text{ m}^2$

$V = \frac{1}{3} \pi k^2 r = \frac{1}{3} \pi \cdot 2,4^2 \cdot 5,5 = 33,2 \text{ m}^3$

b) $V = 3 \text{ dm}^3$

$k = 1,5 \text{ dm}$

$r = ?$

$s = ?$

$g = ?$

$V = \frac{1}{3} \pi k^2 r$

$r = \frac{V}{\frac{1}{3} \pi k^2} = \frac{3}{\frac{1}{3} \pi \cdot 1,5^2} = 1,27 \text{ dm}$

$s^2 = r^2 + k^2$

$s^2 = 1,27^2 + 1,5^2$

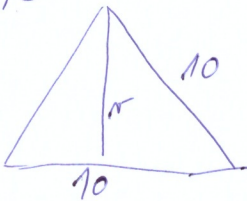
$s = \sqrt{3,86}$

$s = 1,97$

$S = \pi k (k + s) = \pi \cdot 1,5 (1,5 + 1,97) =$

$= 16,4 \text{ dm}^2$

16/1/5



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

$r = \sqrt{100 - 25}$

$r = \sqrt{75}$

$r = 8,7 \text{ cm}$

$k = 5$

$r = 8,7$

$s = 10$

$V = \frac{1}{3} \pi k^2 r = \frac{1}{3} \pi \cdot 5^2 \cdot 8,7 = 227,8 \text{ cm}^3$

16/1/6

$V = 0,5 \text{ l}$

$d = 10 \text{ cm} = 1 \text{ dm}$

$k = 0,5 \text{ dm}$

$g = ?$

$s^2 = r^2 + k^2$

$s = \sqrt{1,9 + 0,5^2}$

$s = \sqrt{3,86}$

$s = 1,96 \text{ dm}$

$V = \frac{1}{3} \pi k^2 r$

$r = \frac{V}{\frac{1}{3} \pi k^2} = \frac{0,5}{\frac{1}{3} \pi \cdot 0,5^2} = 1,9 \text{ dm}$

$S = \pi k (k + s) = \pi \cdot 0,5 (0,5 + 1,96) = 3,86 \text{ dm}^2$

163/3

$$V = 1 \text{ m}^3$$

$$S = ?$$

$$S = 4\pi r^2 = 4 \cdot \pi \cdot 0,6^2 = 4,5 \text{ m}^2$$

$$V = \frac{4}{3} \pi r^3$$

$$r = \sqrt[3]{\frac{V}{\frac{4}{3}\pi}} = \sqrt[3]{0,24} = 0,6 \text{ m}$$

163/4 $\sigma = 40000 \text{ km}$

$$S = ?$$

$$V = ?$$

$$\sigma = 2\pi r$$

$$r = \frac{\sigma}{2\pi} = 6366 \text{ km}$$

$$S = 4\pi r^2 = 4 \cdot \pi \cdot 6366^2 = 509264182 \text{ km}^2$$

$$V = \frac{4}{3} \pi r^3 = \frac{4}{3} \pi \cdot 6366^3 = 1080658595000 \text{ km}^3$$

163/5)

$$m = 72 \text{ kg}$$

$$\rho = 7600 \frac{\text{kg}}{\text{m}^3}$$

$$V = ?$$

$$V = \frac{m}{\rho} = \frac{72}{7600} = 0,0095 \text{ m}^3 = 9,5 \text{ dm}^3$$

$$r = \sqrt[3]{\frac{V}{\frac{4}{3}\pi}} = 0,6 \text{ dm}$$

$$S = 4\pi r^2 = 4,5 \text{ dm}^2$$

$$r = 5 \text{ cm}$$

$$S = ?$$

$$V = ?$$

$$S = 4\pi r^2 = 314,2 \text{ cm}^2$$

$$V = \frac{4}{3} \pi r^3 = 523,6 \text{ cm}^3$$