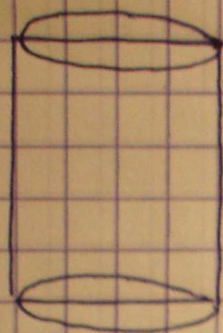


2AD3



$$h = a + 6$$

$$P_{\text{cyl}} = 210\pi$$

$$V = ?$$

$$P_{\text{cyl}} = 2P_{\text{pocz}} + P_{\text{kon}}$$

$$P_{\text{kon}} = 2\pi\left(\frac{a}{2}\right)^2 + 2\pi\frac{a}{2} \cdot h$$

$$210\pi = \frac{\pi a^2}{2} + \pi a(a+6) \quad :/\pi$$

$$210 = \frac{a^2}{2} + a^2 + 6a \quad \cdot /2$$

$$420 = a^2 + 2a^2 + 12a$$

$$3a^2 + 12a - 420 = 0 \quad :/3$$

$$a^2 + 4a - 140 = 0$$

$$\Delta = 16 + 4 \cdot 140 = 16 + 560 = 576$$

$$\sqrt{\Delta} = 24$$

$$a_1 = \frac{-12 - 24}{2} = -\frac{36}{2} = -18 \text{ ODPADAJE}$$

$$a_2 = \frac{-12 + 24}{2} = \frac{12}{2} = 6$$

$$h = 6 + 6 = 12$$

$$V = P_{\text{pocz}} \cdot h$$

$$P_{\text{pocz}} = \pi \frac{a^2}{4} =$$

$$= \pi - \frac{36}{4} = 8\pi$$

$$V = 8\pi \cdot 12 = 108\pi$$