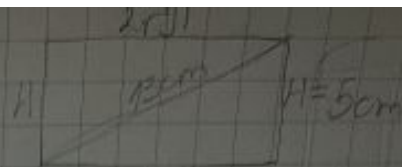


Babak - 20 + 10 cm



682

$$P = 112\pi \text{ cm}^2$$

$$r : H = 2 : 5 = k \Rightarrow r = 2k, H = 5k$$

$$M, V = ?$$

$$M = 2r^2\pi + 2r\pi H$$

$$P = 2B + M = 2r^2\pi + 2r\pi H = 2r\pi(r + H) = 2 \cdot 2k\pi(2k + 5k) = 4k\pi \cdot 7k = 28k^2\pi$$

$$\Rightarrow r = 4 \text{ cm}, H = 10 \text{ cm}$$

$$M = 2r^2\pi + 2r\pi H = 2 \cdot 4^2\pi + 2 \cdot 4 \cdot 10\pi = 32\pi + 80\pi = 112\pi \text{ cm}^2$$

$$B = r^2\pi = 16\pi \text{ cm}^2$$

$$V = B \cdot H = 16 \cdot 10\pi = 160\pi \text{ cm}^3$$

685

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

$$P, V = ?$$

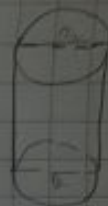
$$(2r\pi)^2 = 169 - 25 = 144$$

$$2r\pi = \sqrt{144} \text{ cm} = 12 \text{ cm}$$

$$r = \frac{6}{\pi} \text{ cm}$$

$$P = 2B + M = 2r^2\pi + 2r\pi H = 2r\pi(r + H) = 12 \left(\frac{6}{\pi} + 5 \right) = \frac{72}{\pi} + 60 \text{ cm}^2$$

$$V = B \cdot H = r^2\pi H = \left(\frac{6}{\pi} \right)^2 \pi \cdot 5 = \frac{36}{\pi} \cdot 5 = \frac{180}{\pi} \text{ cm}^3$$



686



$$r = 2, P_0 = 144 \text{ cm}^2$$

$$2r = H, P, V = ?$$

$$P_0 = H^2 \Rightarrow H = \sqrt{144} \text{ cm} = 12 \text{ cm}$$

$$P = 2B + M$$

$$P = 2r^2\pi + 2r\pi H = 12 \text{ cm}, r = \frac{H}{2} = 6 \text{ cm}$$

$$P = 2 \cdot 6^2\pi + 2 \cdot 6 \cdot 12\pi = 72\pi + 144\pi = 216\pi \text{ cm}^2$$

$$P = 216\pi \text{ cm}^2$$

$$V = B \cdot H$$

$$V = r^2\pi H = 36 \cdot 12\pi = 432\pi \text{ cm}^3$$

$$V = 432\pi \text{ cm}^3$$

685



$$V = 128 \text{ cm}^3$$

$$V = B \cdot H$$

$$W = B \cdot H$$

$$H \cdot V = H^3$$

$$V = r^2\pi H$$

$$r = \frac{a}{2}, W = \left(\frac{a}{2} \right)^2 \pi \cdot H$$

$$W = \frac{a^2}{4} \pi \cdot H, W = 128\pi$$

$$W = 32\pi \text{ cm}^2$$