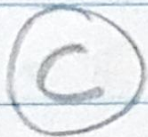
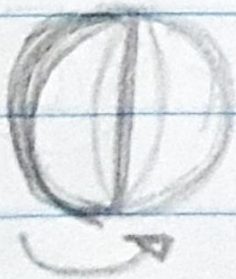
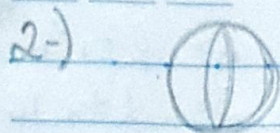


Larefa Banca

1-)





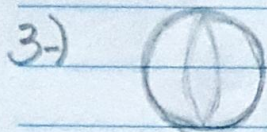
$$r = 1$$

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

$$r = ? = 100 //$$

$$V = \frac{4\pi}{3} \cdot 1000000$$

$$\sqrt[3]{1000000} = 100$$



$$\frac{4\pi R^3}{3}$$

$$= \frac{4\pi R^3}{3\pi (2R)^2 \cdot 4R} = \frac{4R^3}{48R^3}$$

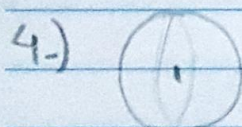


$$\rightarrow \frac{1}{12} //$$

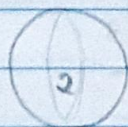
(E)

$$d = h$$

$$h = 4R$$



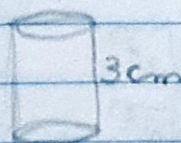
$$r = 1 \text{ cm}$$



$$r = 2 \text{ cm}$$

$$V_1 = \frac{4\pi}{3}$$

$$V_2 = \frac{32\pi}{3}$$



$$3 \text{ cm}$$

$$12\pi = \pi r^2 \cdot 3$$

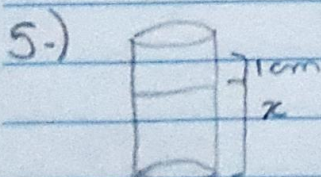
$$r^2 = 4$$

$$r = 2 \text{ cm}$$

(B)

$$V_T = \frac{4\pi}{3} + \frac{32\pi}{3}$$

$$V_T = 12\pi$$



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

$$36 = \frac{4\pi r^3}{3}$$

$$r = 3 \text{ cm}$$

$$27 = \pi r^3$$

(C)

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

$$V = \pi r^2 \cdot 3$$

$$V = \pi \cdot 72$$

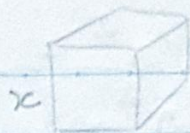
$$V = \pi \cdot 108$$

augmentou 36.

6-)



$$V = 288\pi \text{ cm}^3$$



$$\frac{4}{3}\pi r^3 = 288\pi$$

E)

$$864 = 4r^3$$

$$216 = r^3$$

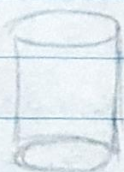
$$r = 6$$

$$x = d$$

$$d = 2r$$

$$d = 12 \text{ cm}$$

7-)



$$16 \text{ cm}$$



$$2 \text{ cm} = r$$

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

$$V = \frac{32}{3}\pi$$

D)

$$d = 20 \text{ cm}$$

$$V = \pi r^2 \cdot h$$

$$V = \pi 100 \cdot 16$$

$$V = 1600\pi \text{ cm}^3$$

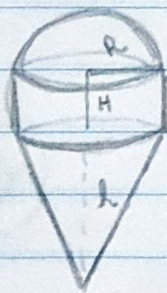
$$\frac{1600\pi}{\frac{32\pi}{3}} = \frac{4800\pi}{32\pi} = 150$$

$$\frac{32\pi}{3}$$

$$\frac{32\pi}{3}$$

decimhos

8-)



$$\frac{4}{3}\pi R^3 = \pi R^2 h = \frac{1}{3}\pi R^2 h$$

$$2R = 3H$$

D)

$$2R = h = 3H$$

$$\pi R^2 h = \frac{1}{3}\pi R^2 h$$

$$h = 3H$$

1-)



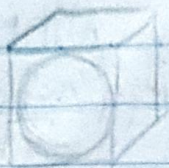
$$A_0 = 100\pi \text{ m}^2 = 4\pi r^2 \rightarrow r = 5 \text{ m}$$

$$h = ?$$

$$g = \sqrt{30} \text{ m}$$



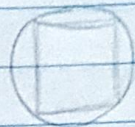
2-)



$$\frac{4\pi r^2}{6 \cdot 4r^2} = \frac{\pi}{6}$$

(A)

$$3- \frac{\frac{4\pi R^3}{3}}{\left(\frac{2R\sqrt{3}}{3}\right)^3} \rightarrow \frac{\frac{4\pi R^3}{3}}{\frac{8R^3 3\sqrt{3}}{27}}$$



$$\text{diagonal} = l\sqrt{3}$$

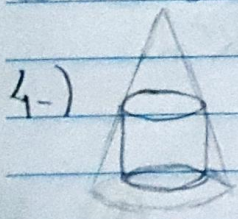
$$2R = l\sqrt{3}$$

$$l = \frac{2R \cdot \sqrt{3}}{\sqrt{3}} = \frac{2R\sqrt{3}}{3}$$

$$\frac{\frac{4\pi R^3}{3}}{\frac{8R^3\sqrt{3}}{9}} \rightarrow \frac{36\pi R^3}{24R^3\sqrt{3}} \rightarrow \frac{3\pi}{2\sqrt{3}}$$

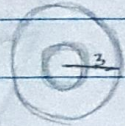
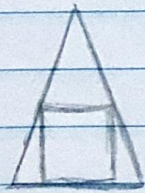
(B)

$$\frac{3\pi \cdot \sqrt{3}}{2\sqrt{3} \cdot \sqrt{3}} \rightarrow \frac{\pi\sqrt{3}}{2}$$



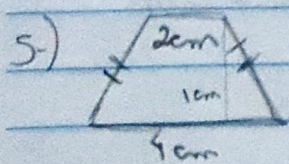
$$V_{\Delta} = \frac{1}{3} \pi 3^2 \cdot 12$$

$$V_{\Delta} = 36\pi \text{ cm}^3$$



$$h = d$$

$$h = 2r$$



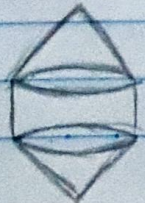
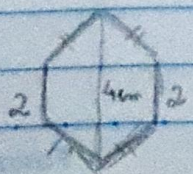
$$V_{\Delta} = \frac{1}{3} \pi r^2 h$$

$$V_c = \pi r^2 \cdot h$$

$$V_c = 2\pi$$

$$V_{\Delta} = \frac{1}{3} \pi$$

$$V_T = 2\pi + 2 \cdot \frac{1}{3} \pi$$



$$V_T = \frac{8}{3} \pi \text{ cm}^3$$