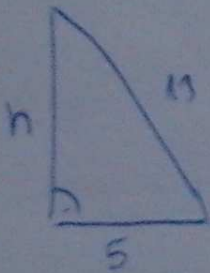
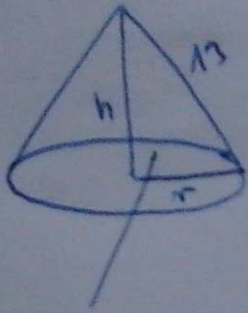


2AD, 5.22c



$$h^2 = 13^2 - 5^2$$

$$h^2 = 169 - 25$$

$$h^2 = 144$$

$$h = \sqrt{144} = 12$$

$$P_{\text{CATU}} = 90\pi$$

$$V = ?$$

$$P_{\text{CATU}} = P_{\text{poder}} + P_{\text{bolu}}$$

$$P_{\text{poder}} = \pi r^2$$

$$P_{\text{bolu}} = \pi r L$$

$$P_{\text{CATU}} = \pi r^2 + \pi r L$$

$$90\pi = \pi r^2 + 13\pi r$$

$$r^2 + 13r - 90 = 0$$

$$\Delta = 169 + 360$$

$$\Delta = 529$$

$$\sqrt{\Delta} = 23$$

$$r_1 = \frac{-13 - 23}{2} = \frac{-36}{2} = -18$$

$$r_2 = \frac{-13 + 23}{2} = \frac{10}{2} = 5$$

$$V = \frac{1}{3} P_{\text{poder}} \cdot h =$$

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

$$= \frac{1}{3} \pi \cdot 5^2 \cdot 12 =$$

$$= \frac{1}{3} \pi \cdot 25 \cdot 12 =$$

$$= 100\pi$$