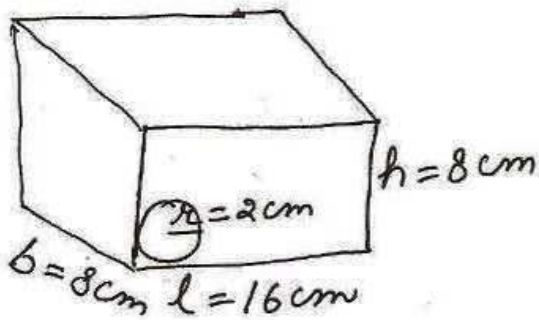


(11)



volume of water filled = vol. of box - vol of 16 spheres

$$= lbh - 16 \times \frac{4}{3} \pi r^3$$

$$= 16 \times 8 \times 8 - 16 \times \frac{4}{3} \times \frac{22}{7} \times 2 \times 2 \times 2$$

$$= 1024 - \frac{11264}{7 \times 3}$$

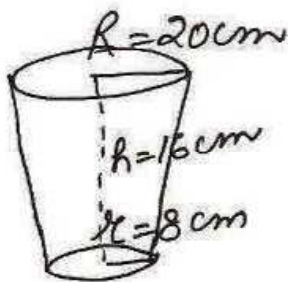
$$= \frac{21504 - 11264}{21}$$

$$= \frac{10240}{21}$$

$$= 487.62 \text{ cm}^3$$

$$= 487.62 \text{ ml}$$

(12)



volume of milk in container

$$= \frac{1}{3} \pi h (r^2 + R^2 + rR)$$

$$= \frac{1}{3} \times \frac{22}{7} \times 16 (8^2 + 20^2 + 8 \times 20)$$

$$= \frac{11 \times 32}{21} \times 4^2 (4 + 25 + 10)$$

$$= \frac{11 \times 32 \times 16}{21 \times 7} \times 39^{13}$$

$$= \frac{73216}{7} \text{ cm}^3$$

$$= \frac{73216}{7} \text{ l}$$

cost of milk

$$= \frac{73216}{7} \times 22$$

$$= \text{Rs } 230.11$$