

no. of lead shots

$$= \frac{\text{vol. of cuboid}}{\text{vol. of a spherical shot}}$$

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

$$= \frac{66 \times 42 \times 21}{\frac{4}{3} \times 21^3}$$

$$= \frac{4 \times 22 \times 21 \times 21 \times 21}{3 \times 7 \times 10}$$

$$= 3 \times 5 \times 10 \times 10$$

$$= 1500$$

space occupied by bricks =  $\frac{9}{10}$  vol. of wall

no. of bricks

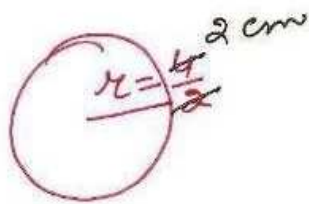
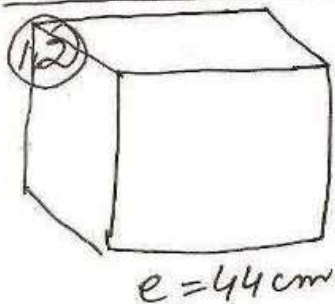
$$= \frac{\frac{9}{10} \text{ vol. of wall}}{\text{vol of a brick}}$$

$$= \frac{9LBH}{10lbh}$$

$$= \frac{9 \times 24 \times 0.4 \times 10}{10 \times \frac{25}{100} \times \frac{16}{100} \times \frac{10}{100}}$$

$$= 9 \times 36 \times 4 \times 10$$

$$= 12960$$



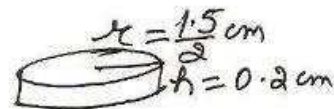
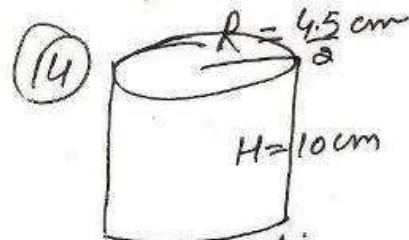
no. of lead shots

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

$$= \frac{44 \times 44 \times 44}{\frac{4}{3} \times 22^3}$$

$$= 21 \times 11 \times 11$$

$$= 2541$$



no. of discs =  $\frac{\text{vol. of cylinder}}{\text{vol. of a disc}}$

$$= \frac{\pi R^2 H}{\pi r^2 h}$$

$$= \frac{4.5^3 \times 10}{1.5^3 \times 0.2} = 450$$