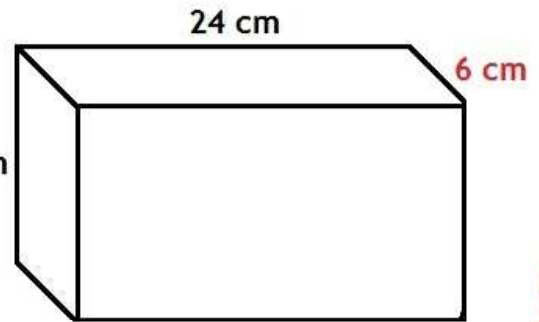
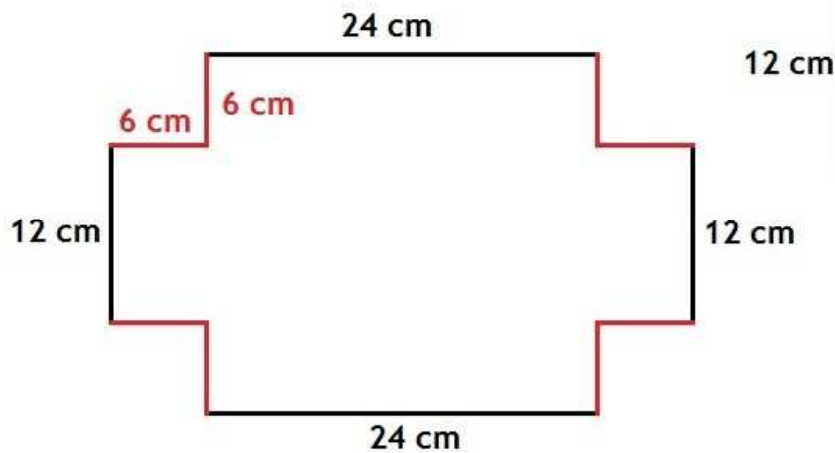


A metallic sheet is of the rectangular shape with dimensions 36 cm by 24 cm. From each corner a square of 6 cm is cut off. An open box is made from the remaining sheet. Find the volume of the box.



$$\begin{aligned} \text{length of box} &= 36 - (6+6) \\ &= 24 \text{ cm} \end{aligned}$$

$$\begin{aligned} \text{breadth of box} &= 24 - (6+6) \\ &= 24 - 12 \\ &= 12 \text{ cm} \end{aligned}$$

$$\text{height of box} = 6 \text{ cm}$$

$$\begin{aligned} \text{volume of box} &= lbh \\ &= 24 \times 12 \times 6 \\ &= 1728 \text{ cm}^3 \end{aligned}$$