

Surface Areas and Volume of a Cuboid and Cube Ex 18.1 Q19

Answer:

The paint in the container can paint the area,

$$A = 9.375 \,\mathrm{m}^2$$
  
= 93750 cm<sup>2</sup> {Since 1 m = 100 cm}

Dimensions of a single brick,

$$Length(l) = 22.5 cm$$

Breadth
$$(b) = 10 \,\mathrm{cm}$$

$$Height(h) = 7.5 cm$$

We need to find the number of bricks that can be painted Surface area of a brick,

$$A' = 2(lb + bh + hl)$$

$$= 2(22.5 \times 10 + 10 \times 7.5 + 7.5 \times 22.5)$$

$$= 2(225 + 75 + 168.75)$$

$$= 468.75 \times 2$$

$$= 937.50 \text{ cm}^2$$

Number of bricks that can be painted

$$= \frac{A}{A'}$$

$$= \frac{93750}{937.5}$$

$$= 100$$

Hence 100 bricks can be painted out of the container.

\*\*\*\*\*\*\* END \*\*\*\*\*\*