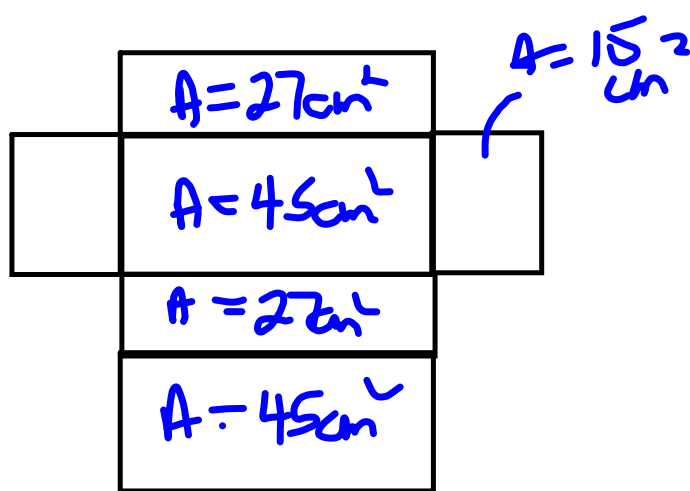


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4.

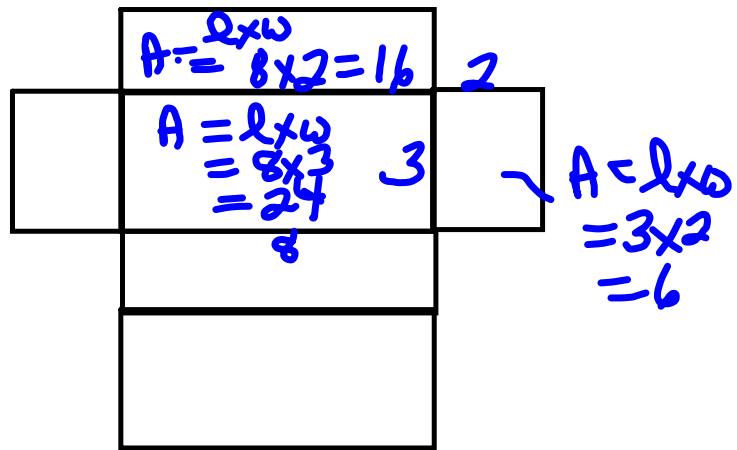
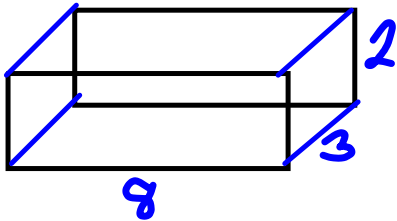


$$\begin{aligned} SA &= 2 \times 15 + 2 \times 45 + 2 \times 27 \\ &= 30 + 90 + 54 \\ &= 174 \text{ cm}^2 \end{aligned}$$

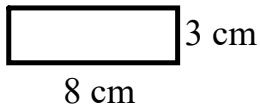
I added all
the areas.

$$\begin{aligned} SA &= 15 + 27 + 45 + 15 + 27 + 45 \\ &= 174 \text{ cm}^2 \end{aligned}$$

5.

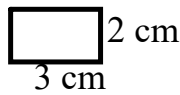


top/bottom



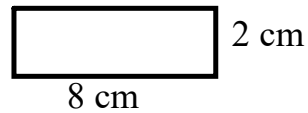
$$\begin{aligned}
 A &= l \times w \\
 &= 8 \text{ cm} \times 3 \text{ cm} \\
 &= 24 \text{ cm}^2
 \end{aligned}$$

side/side



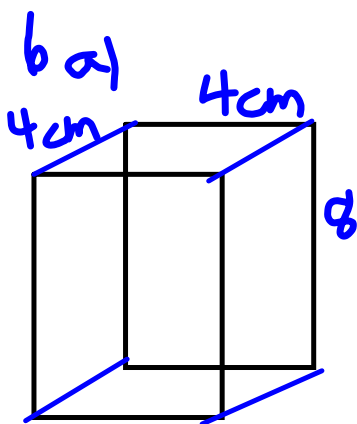
$$\begin{aligned}
 A &= l \times w \\
 &= 2 \text{ cm} \times 3 \text{ cm} \\
 &= 6 \text{ cm}^2
 \end{aligned}$$

front/back

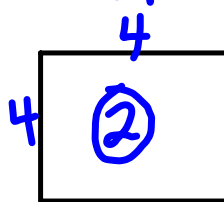


$$\begin{aligned}
 A &= l \times w \\
 &= 2 \text{ cm} \times 8 \text{ cm} \\
 &= 16 \text{ cm}^2
 \end{aligned}$$

$$\begin{aligned}
 SA &= 2 \times 16 + 2 \times 24 + 2 \times 6 \\
 &= 32 + 48 + 12 \\
 &= 92 \text{ cm}^2
 \end{aligned}$$

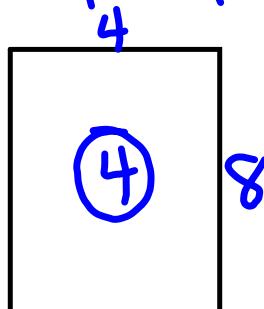


Top and Bottom



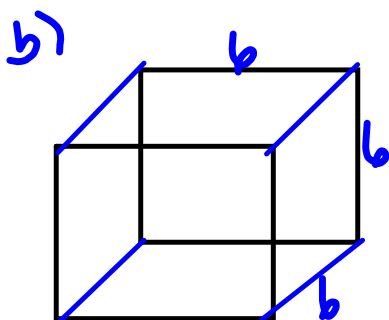
$$A = l \times w \\ = 4 \times 4 \\ = 16 \text{ cm}^2$$

Front, Back, Sides

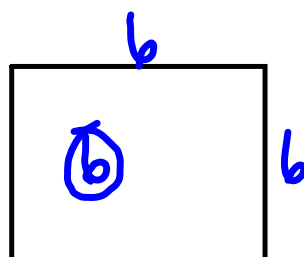


$$A = l \times w \\ = 8 \times 4 \\ = 32 \text{ cm}^2$$

$$SA = 2 \times 16 + 4 \times 32 \\ = 32 + 128 \\ = 160 \text{ cm}^2$$



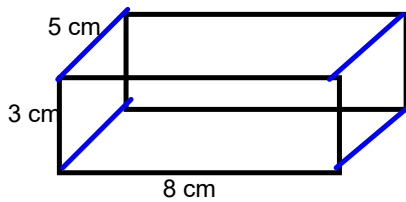
Cube - All faces the same



$$A = l \times w \\ = b \times b \\ = 3b \text{ cm}^2$$

$$SA = 6 \times 3b^2 \\ = 21b \text{ cm}^2$$

What is the surface area of this prism?



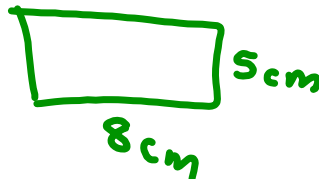
8 cm, 3 cm, 5 cm

Front/Back



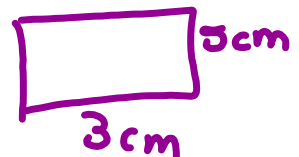
$$\begin{aligned} A &= L \times w \\ &= 3 \text{ cm} \times 8 \text{ cm} \\ &= 24 \text{ cm}^2 \end{aligned}$$

Top/Bottom



$$\begin{aligned} A &= L \times w \\ &= 8 \text{ cm} \times 5 \text{ cm} \\ &= 40 \text{ cm}^2 \end{aligned}$$

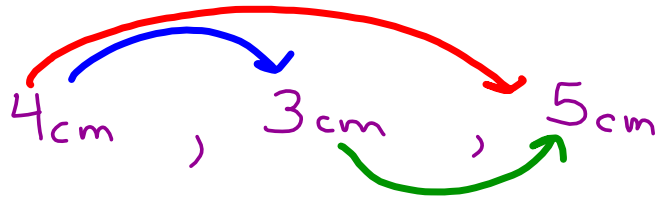
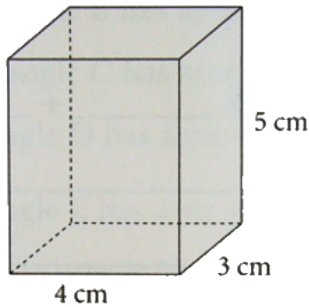
L/R



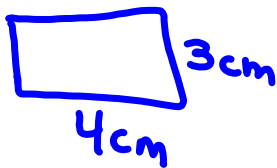
$$\begin{aligned} A &= L \times w \\ &= 3 \text{ cm} \times 5 \text{ cm} \\ &= 15 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} \text{Total SA.} &= 2 \text{ Front} + 2 \text{ Top} + 2 \text{ sides} \\ &= 2(24 \text{ cm}^2) + 2(40 \text{ cm}^2) + 2(15 \text{ cm}^2) \\ &= 48 \text{ cm}^2 + 80 \text{ cm}^2 + 30 \text{ cm}^2 \\ &= 158 \text{ cm}^2 \end{aligned}$$

What is the surface area of this prism?



Front/Back



$$\begin{aligned} A &= L \times w \\ &= 4 \text{ cm} \times 3 \text{ cm} \\ &= 12 \text{ cm}^2 \end{aligned}$$

Top/Bottom



$$\begin{aligned} A &= L \times w \\ &= 4 \text{ cm} \times 5 \text{ cm} \\ &= 20 \text{ cm}^2 \end{aligned}$$

Left/Right



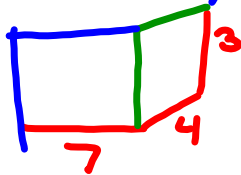
$$\begin{aligned} A &= L \times w \\ &= 3 \text{ cm} \times 5 \text{ cm} \\ &= 15 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} \text{Total SA} &= 2(\text{Front}) + 2(\text{Top}) + 2(\text{Side}) \\ &= 2(12 \text{ cm}^2) + 2(20 \text{ cm}^2) + 2(15 \text{ cm}^2) \\ &= 24 \text{ cm}^2 + 40 \text{ cm}^2 + 30 \text{ cm}^2 \\ &= 94 \text{ cm}^2 \end{aligned}$$

Class/Homework

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#6c, #7a,b, #9, #10 #11, #12, #13



$$A = 7 \times 3 \text{ m}^2$$

$$= 21 \text{ m}^2$$

x2 walls

$$42 \text{ m}^2$$

Walls 7×3 (x2)
wall 4×3 (x2)

Floor/Ceiling 7×4 (Not painting)

②

Front/Back walls

$$A = L \times w$$

$$= 4 \times 3$$

$$= 12 \text{ m}^2$$

x2 walls

$$24 \text{ m}^2$$

$$= 66 \text{ m}^2 \text{ of walls}$$

x2 coats

$$132 \text{ m}^2 \text{ of paint}$$

4L cover 40 m^2

$$132 \text{ m}^2 \div 40 = 3.3$$

Buy 4 cans

10) SA cube = 54cm^2
→ a cube has 6 equal faces

a) Area of 1 face = $54\text{cm}^2 \div 6$
= 9cm^2



b) Side of square = $\sqrt{\text{Area}}$
= $\sqrt{9\text{cm}^2}$
= 3cm

Attachments

Review of Surface area of 2D Shape Grade 8 Unit 4 PDF.pdf