

# Finding the Surface Area of Cubes and Cuboids

Maths

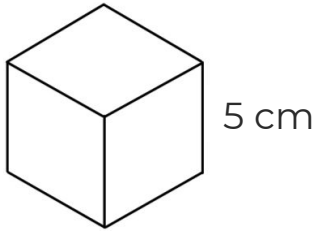
Miss Davies



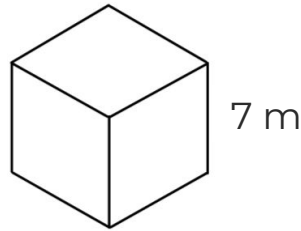
# Finding the Surface Area of Cubes and Cuboids

1. Calculate the surface area of the cubes.

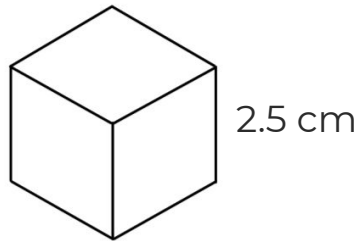
a)



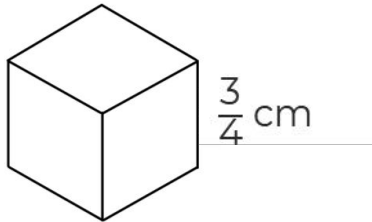
b)



c)

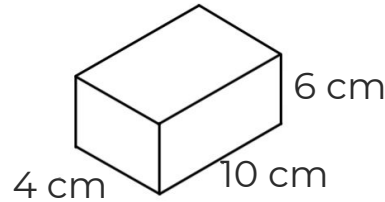


d)

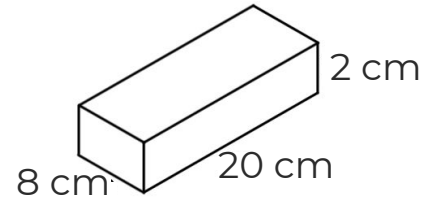


2. Calculate the surface area of the cuboids.

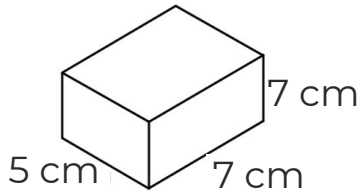
a)



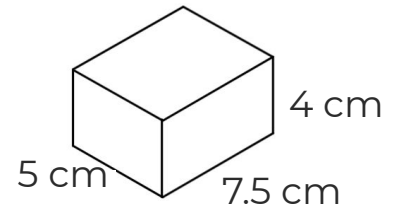
b)



c)



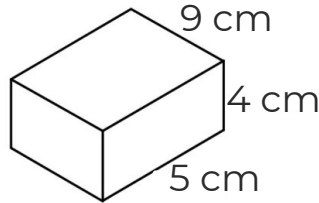
d)



# Finding the Surface Area of Cubes and Cuboids

3. Michaela is working out the surface area of the cuboid.

$$\begin{aligned}9 \times 4 &= 36 \\4 \times 5 &= 20 \\9 \times 5 &= 45 \\36 + 20 + 45 &= 101 \text{ cm}^2\end{aligned}$$



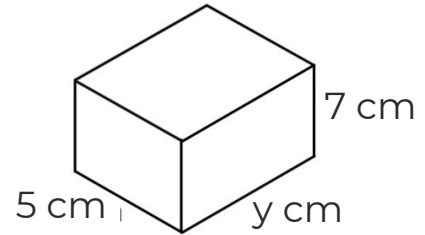
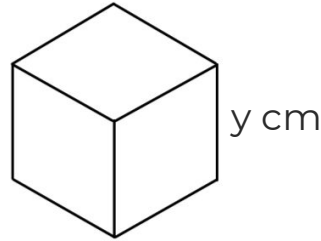
What mistake has she made?

4. A cube has volume of  $512 \text{ cm}^3$ .

What is the surface area of the cube?

5. By finding the missing lengths, calculate the volume given the surface area.

a) S.A. =  $726 \text{ cm}^2$    b) S.A. =  $166 \text{ cm}^2$



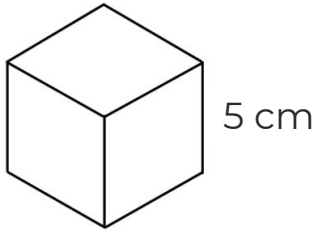
# Answers



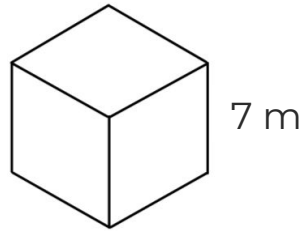
# Finding the Surface Area of Cubes and Cuboids

1. Calculate the surface area of the cubes.

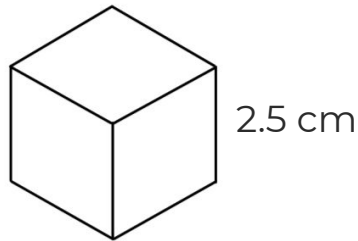
a)  $150 \text{ cm}^2$



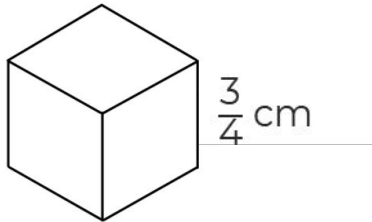
b)  $294 \text{ m}^2$



c)  $37.5 \text{ cm}^2$

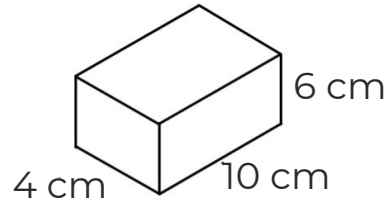


d)  $3.375 \text{ m}^2$

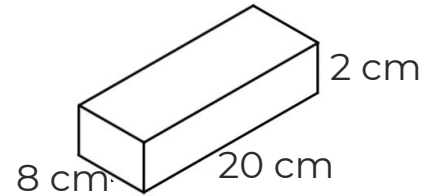


2. Calculate the surface area of the cuboids.

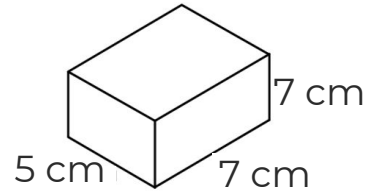
a)  $248 \text{ cm}^2$



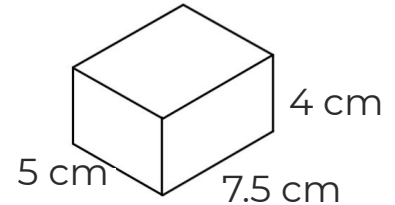
b)  $432 \text{ cm}^2$



c)  $238 \text{ cm}^2$



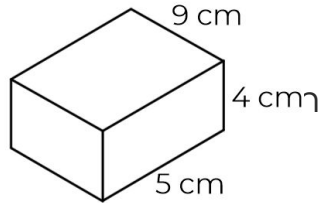
d)  $175 \text{ cm}^2$



# Finding the Surface Area of Cubes and Cuboids

3. Michaela is working out the surface area of the cuboid.

$$\begin{aligned} 9 \times 4 &= 36 \\ 4 \times 5 &= 20 \\ 9 \times 5 &= 45 \\ 36 + 20 + 45 &= 101 \text{ cm}^2 \end{aligned}$$



What mistake has she made?

She needs to multiply it by 2, as there are two of each face.

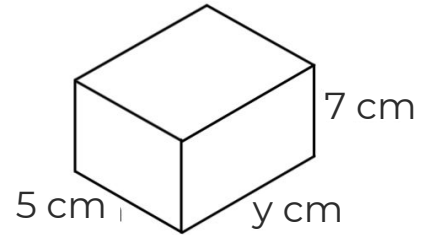
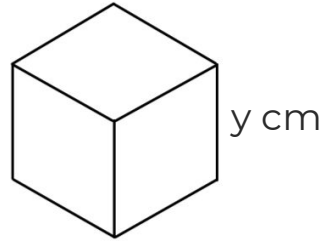
4. A cube has volume of  $512 \text{ cm}^3$ .

What is the surface area of the cube?

$384 \text{ cm}^2$

5. By finding the missing lengths, calculate the volume given the surface area.

a) S.A. =  $726 \text{ cm}^2$     b) S.A. =  $166 \text{ cm}^2$



Volume =  $1331 \text{ cm}^3$     Volume =  $140 \text{ cm}^3$

