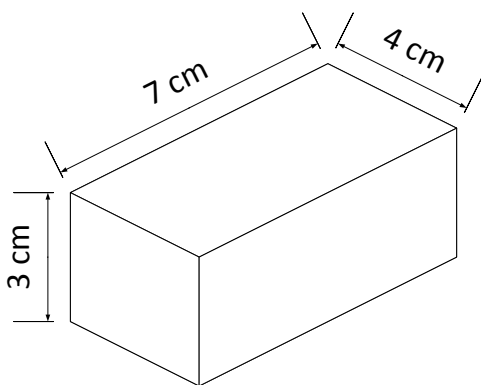


3 a

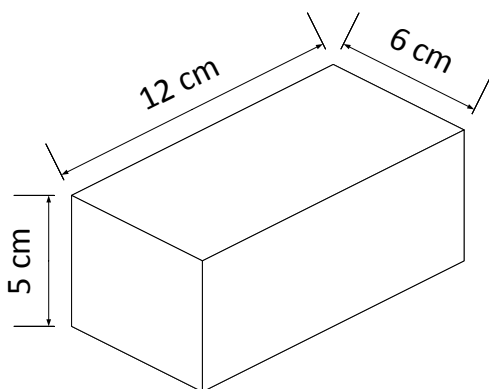


The length, breadth and the height of the cuboid are shown on the diagram.

Calculate the volume of the cuboid.

Calculate the surface area of the same cuboid.

3 b

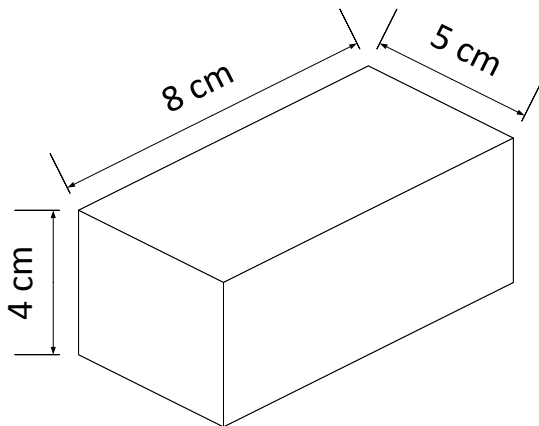


The dimensions of the cuboid are shown on the diagram.

Calculate the volume of the cuboid.

Calculate the surface area of the cuboid.

3 c

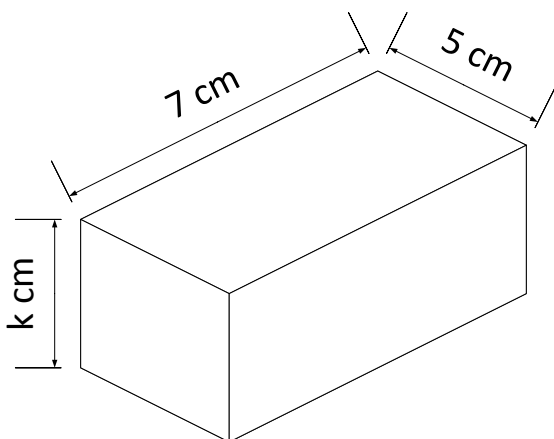


The sides of the cuboid are all shown on the diagram.

Calculate the volume of the cuboid.

Calculate the surface area of the cuboid.

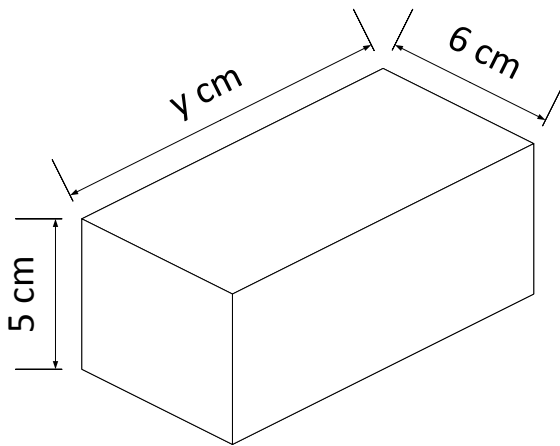
3d



The cuboid in the diagram has a total volume of  $70 \text{ cm}^3$ .

Using this information, calculate the height of the cuboid.

Calculate the surface area of the cuboid.



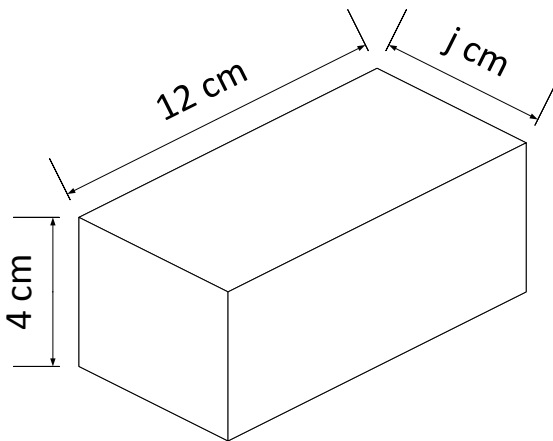
3 e

The volume of the shape shown is  $330 \text{ cm}^3$ .

What is the length (y) of the cuboid?

Calculate the surface area of the cuboid using your answer to the earlier part of the question.

3 f

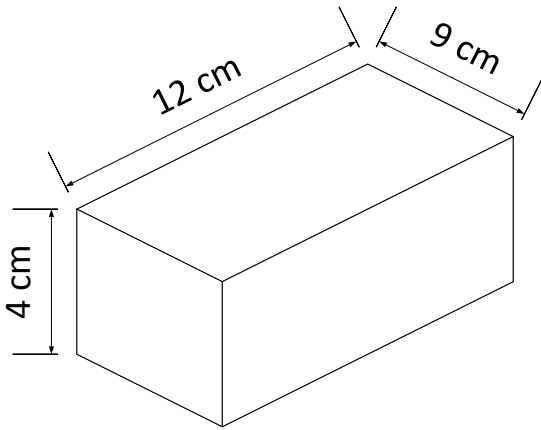


The volume of the cuboid shown is  $192 \text{ cm}^3$ .

Work out the length of j.

Calculate the surface area of the cuboid.

Examples to help you:



$$\text{Volume} = \text{length} \times \text{breadth} \times \text{height}$$

$$= 12 \times 9 \times 4$$

$$= 108 \times 4$$

$$= 432 \text{ cm}^3$$

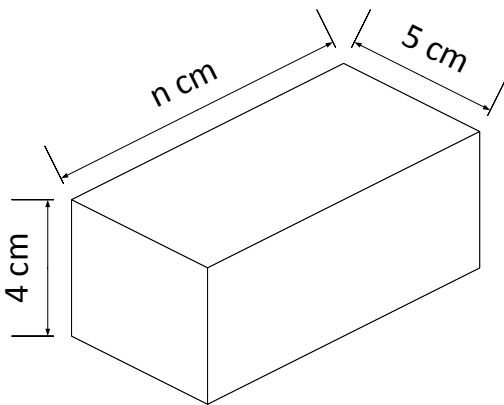
$$\text{Surface Area} = 2(\text{Area of A}) + 2(\text{Area of B}) + 2(\text{Area of C})$$

$$= 2(12 \times 9) + 2(9 \times 4) + 2(12 \times 4)$$

$$= 2(108) + 2(36) + 2(48)$$

$$= 216 + 72 + 96$$

$$= 384 \text{ cm}^2$$



The Volume of the cuboid is  $900 \text{ cm}^3$ .

What is the value of  $n$ ?

$$\text{Volume} = \text{length} \times \text{breadth} \times \text{height}$$

$$\text{So Length} = \frac{\text{Volume}}{\text{breadth} \times \text{height}}$$

$$= \frac{900}{5 \times 4}$$

$$= 45 \text{ cm long.}$$