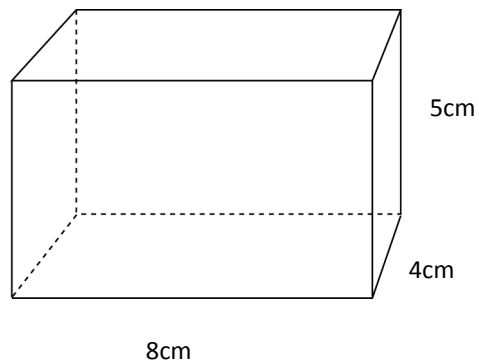


Volume

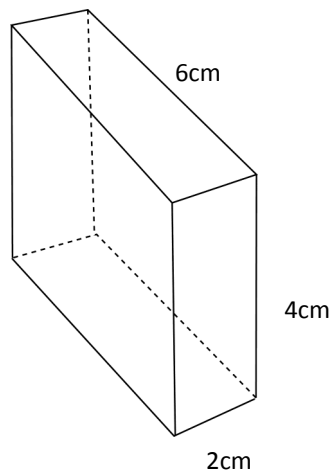
1. What is the volume of this cuboid?

160cm^3



2. Find the volume of this cuboid.

48cm^3



3. The length, width and height of a cuboid are: 5cm, 2cm and 3cm. What is its volume? 30cm^3

4. Find the missing measurements in this table:

Length	Width	Height	Volume
10cm	4cm	3cm	120cm^3
5cm	6cm	2cm	60cm^3
8cm	2cm	3cm	48cm^3
10m	3cm	6m	180m^3
9mm	2mm	4cm	72mm^3

5. A cuboid has a volume of 72cm^3 . If the length, width and height are all whole numbers, how many different sets of measurements can you find?

Answers for Question 5:

$72 \times 1 \times 1$

$36 \times 2 \times 1$

$24 \times 3 \times 1$

$18 \times 4 \times 1$

$18 \times 2 \times 2$

$12 \times 6 \times 1$

$12 \times 3 \times 2$

$9 \times 8 \times 1$

$9 \times 4 \times 2$

$6 \times 4 \times 3$

$96 \times 1 \times 1$

$48 \times 2 \times 1$

$32 \times 3 \times 1$

$24 \times 4 \times 1$

$24 \times 2 \times 2$

$16 \times 6 \times 1$

$16 \times 3 \times 2$

$12 \times 8 \times 1$

$12 \times 4 \times 2$

$8 \times 6 \times 2$

$8 \times 4 \times 3$

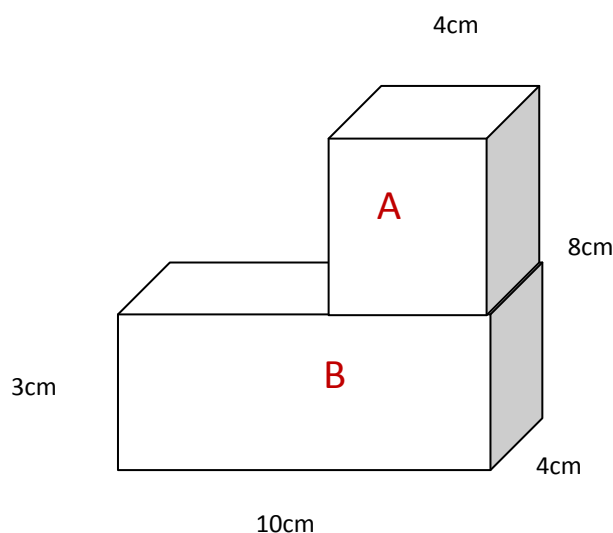
$6 \times 4 \times 4$

6. What is the volume of a cube which has an edge measuring 2cm? 8cm^3
7. One face of a cube has an area of 25cm^2 . What is its volume? 125cm^3
8. The surface area of a cube is 96cm^2 . What is the length of one side?
What is its volume? 4cm
9. A cube has a volume of 216cm^3 . What is the length of one side? 6cm
10. Kloggs Cereal Company is wanting to sell its new breakfast cereal—Choco Crispy Poppers. A 500g portion will take up 700cm^3 . The box manufacturer makes 3 sizes of cardboard boxes:

Box	Length (cm)	Width (cm)	Height (cm)	Volume cm^3
A	40	4	4	640
B	25	5	6	750
C	30	6	4	720

Which box would be most suitable for a 500g portion of Choco Crispy Poppers?

11. A cuboid has 3 different sized faces. The areas of 2 of the faces are 84cm^2 and 56cm^2 . The volume of the cuboid is 672cm^3 . Find
 - a) the length, width and height of the cuboid. $12\text{cm} \times 8\text{cm} \times 7\text{cm}$
 - b) the area of the third face. 96cm^2
12. Find the volume of this shape.

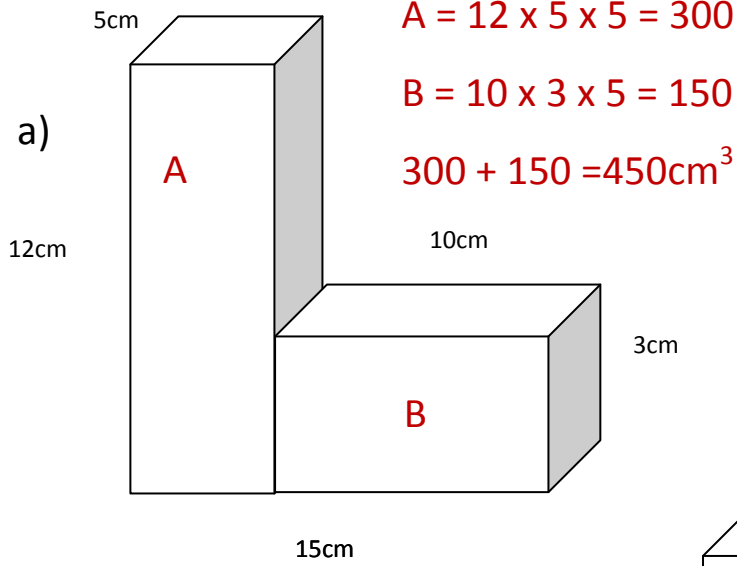


$$A = 5 \times 4 \times 4 = 80$$

$$B = 10 \times 4 \times 3 = 120$$

$$120 + 80 = 200\text{cm}^3$$

12. Find the volume of these shapes:



$$A = 12 \times 5 \times 5 = 300$$

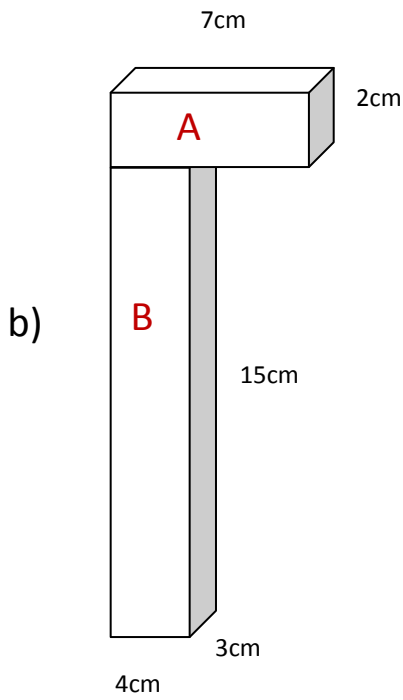
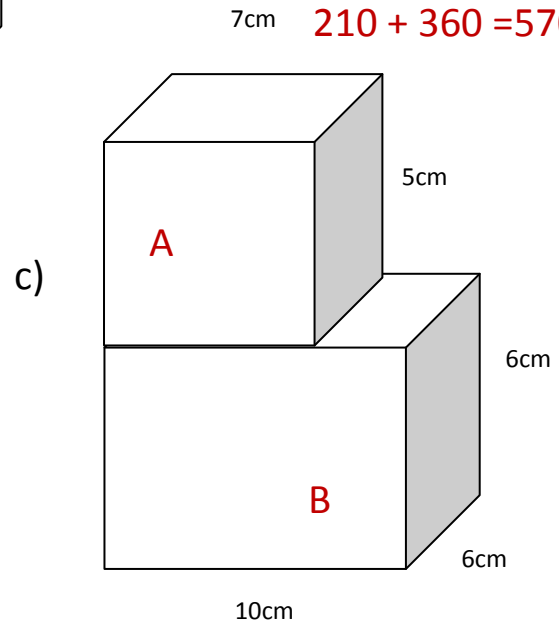
$$B = 10 \times 3 \times 5 = 150$$

$$300 + 150 = 450\text{cm}^3$$

$$A = 7 \times 5 \times 6 = 210$$

$$B = 10 \times 6 \times 6 = 360$$

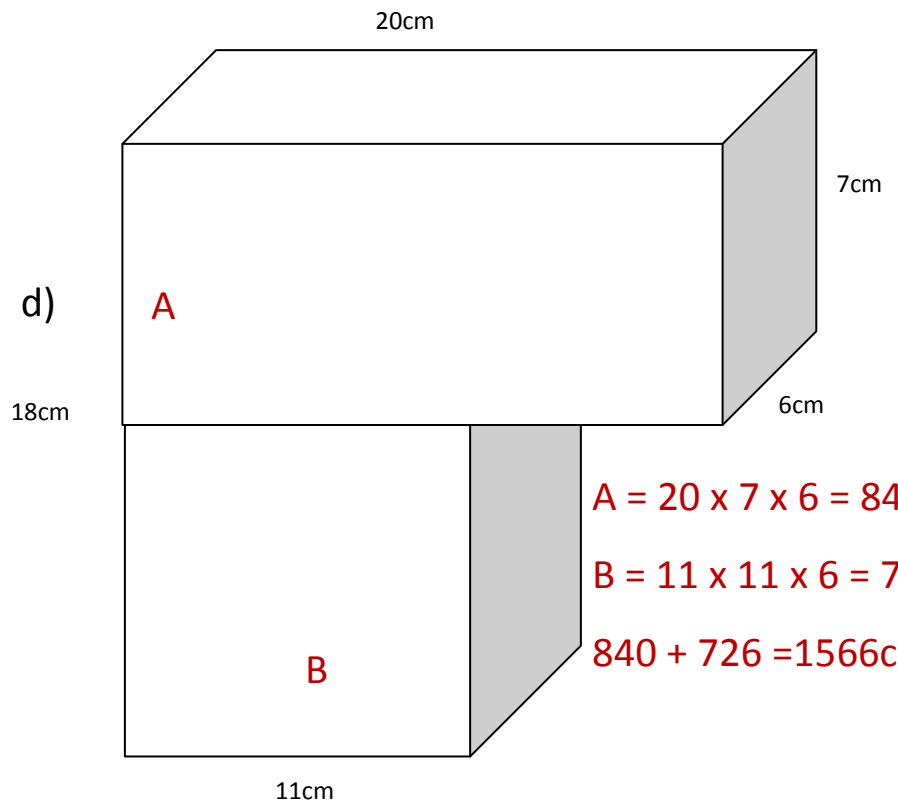
$$210 + 360 = 570\text{cm}^3$$



$$A = 7 \times 2 \times 3 = 42$$

$$B = 15 \times 3 \times 4 = 180$$

$$42 + 180 = 222\text{cm}^3$$



$$A = 20 \times 7 \times 6 = 840$$

$$B = 11 \times 11 \times 6 = 726$$

$$840 + 726 = 1566\text{cm}^3$$