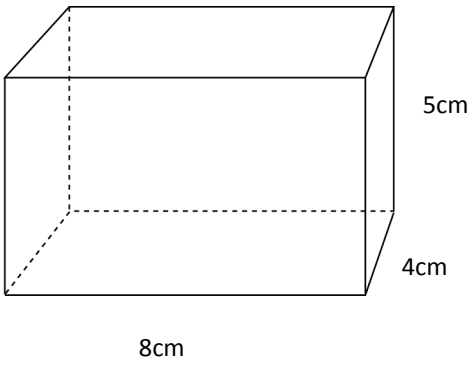
Volume

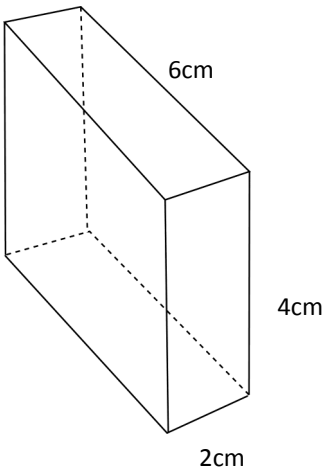
1. What is the volume of this cuboid?

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 x 1 x 1

36 x 2 x 1

24 x 3 x 1

18 x 4 x 1

18 x 2 x 2

12 x 6 x 1

12 x 3 x 2

9 x 8 x 1

9 x 4 x 2

6 x 4 x 3

96 x 1 x 1

48 x 2 x 1

32 x 3 x 1

24 x 4 x 1

24 x 2 x 2

16 x 6 x 1

16 x 3 x 2

12 x 8 x 1

12 x 4 x 2

8 x 6 x 2

8 x 4 x 3

6 x 4 x 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

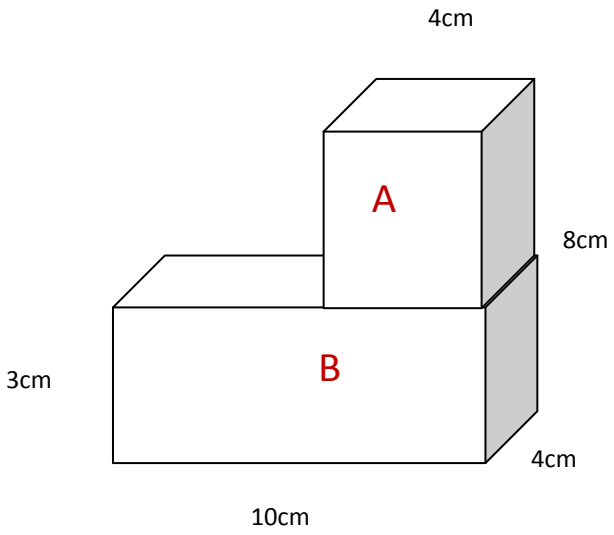
Which box would be most suitable for a 500g portion of Choco Crispy Poppers?

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. 12cm x 8cm x 7cm

b) the area of the third face. $96cm^2$

12. Find the volume of this shape.



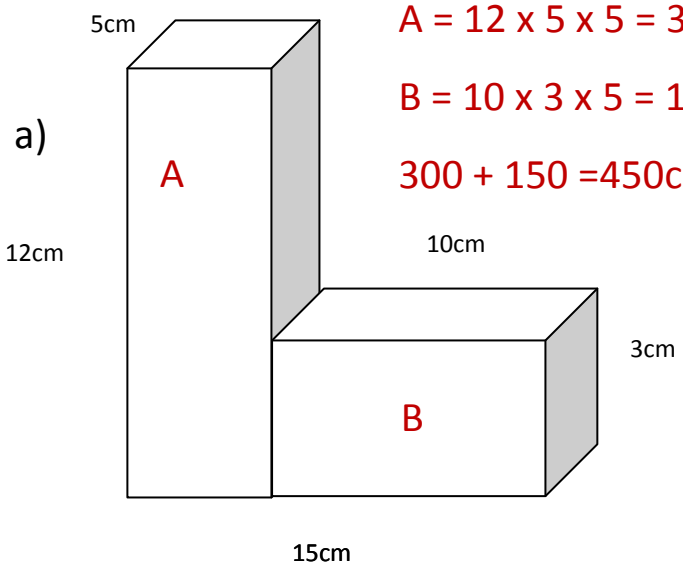
A =5 x 4 x 4 = 80

B= 10 x 4 x 3 = 120

120 + 80 =$200cm^3$

12. Find the volume of these shapes:

a)

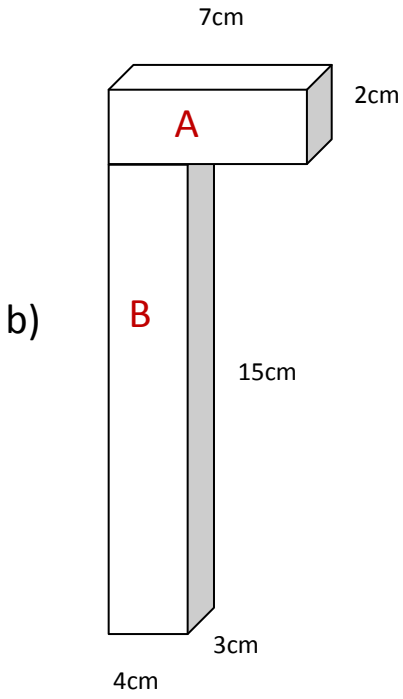


A = 12 x 5 x 5 = 300

B = 10 x 3 x 5 = 150

300 + 150 =450cm^3

b)

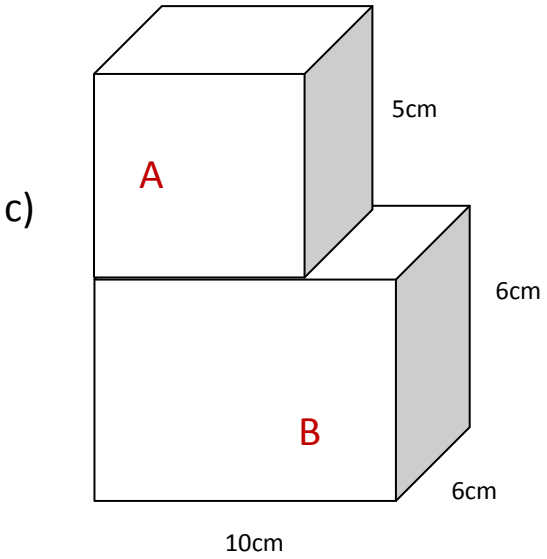


A = 7 x 2 x 3 = 42

B = 15 x 3 x 4 = 180

42 + 180 =222cm^3

c)

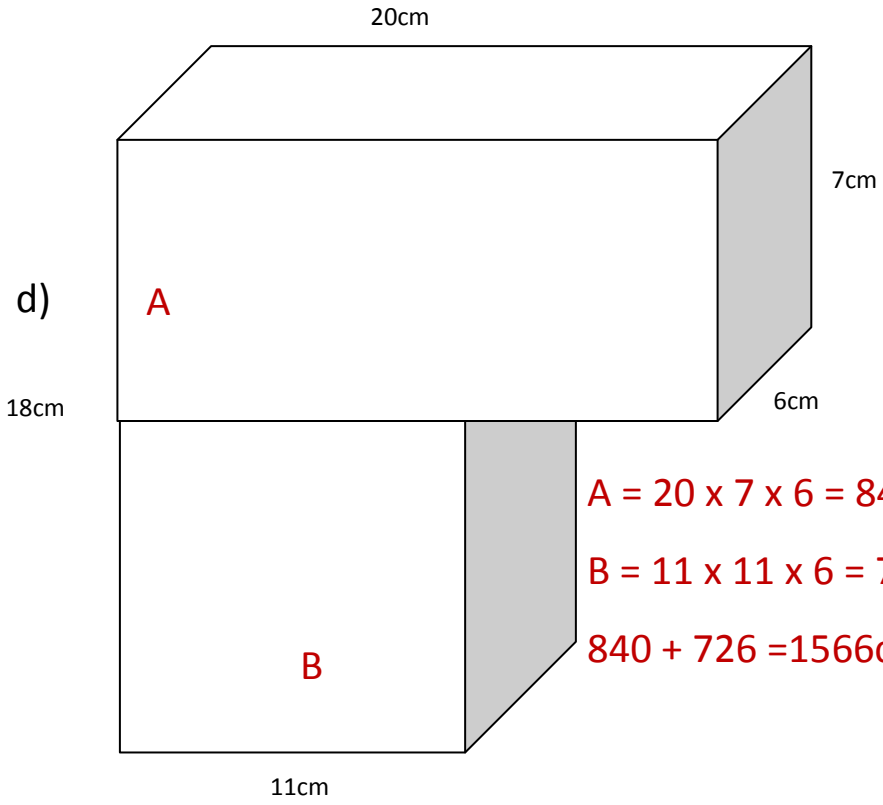


A = 7 x 5 x 6= 210

B = 10 x 6 x 6 = 360

210 + 360 =570cm^3

d)



A = 20 x 7 x 6 = 840

B = 11 x 11 x 6 = 726

840 + 726 =1566cm^3