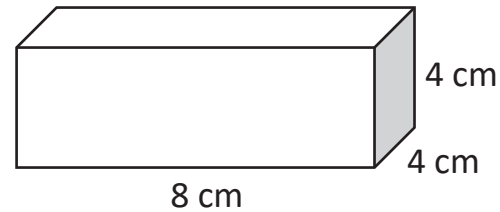


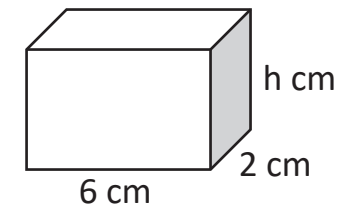
Problem 4

Calculate three-quarters of £320

Calculate the volume of the cuboid



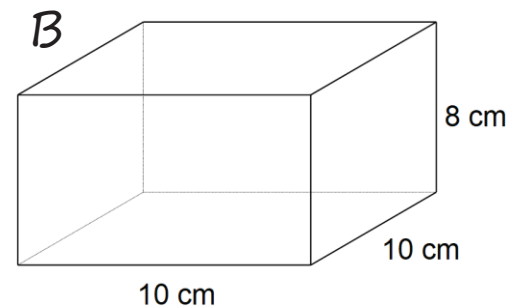
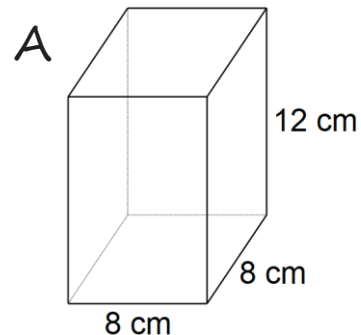
If the volume of the cuboid is 24 cm^3 calculate the height



Water is poured into container A so that it is two-thirds full.

Container A is then emptied into container B.

Calculate the depth of the water in B

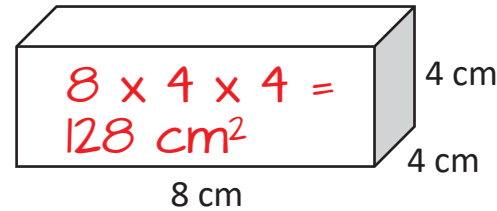


Problem 4

Calculate three-quarters of £320

£240

Calculate the volume of the cuboid

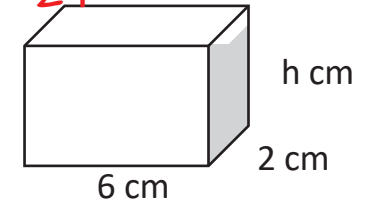


If the volume of the cuboid is 24 cm^3 calculate the height

$$6 \times 2 \times h = 24$$

$$12h = 24$$

$$h = 2 \text{ cm}$$



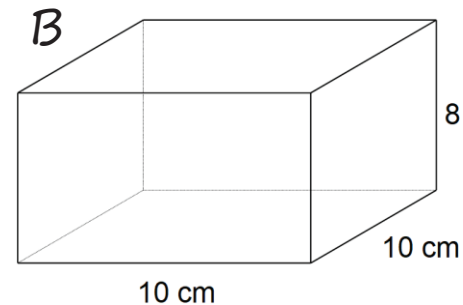
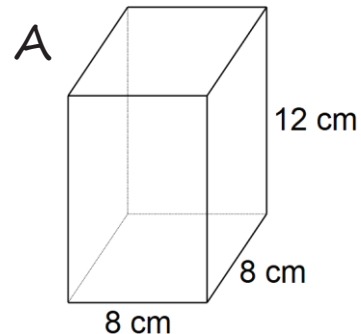
Water is poured into container A so that it is two-thirds full.

Container A is then emptied into container B.

Calculate the depth of the water in B

$$8 \times 8 \times 12 = 768 \text{ cm}^3$$

$$\text{Two thirds} = 512 \text{ cm}^3$$



$$\begin{aligned} \text{Area of base} \\ = 10 \times 10 = 100 \text{ cm}^2 \end{aligned}$$

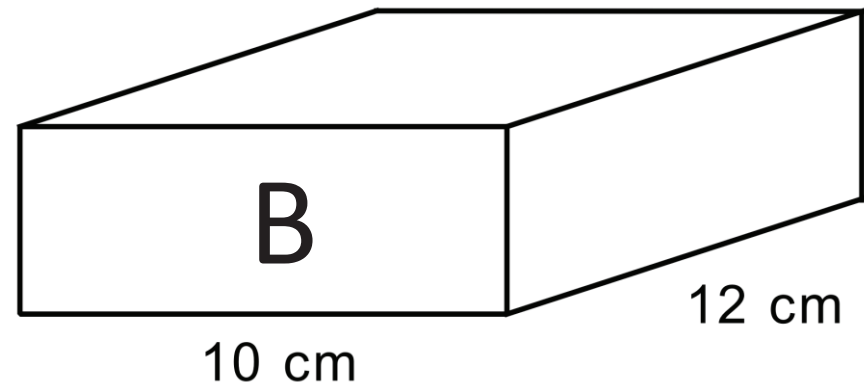
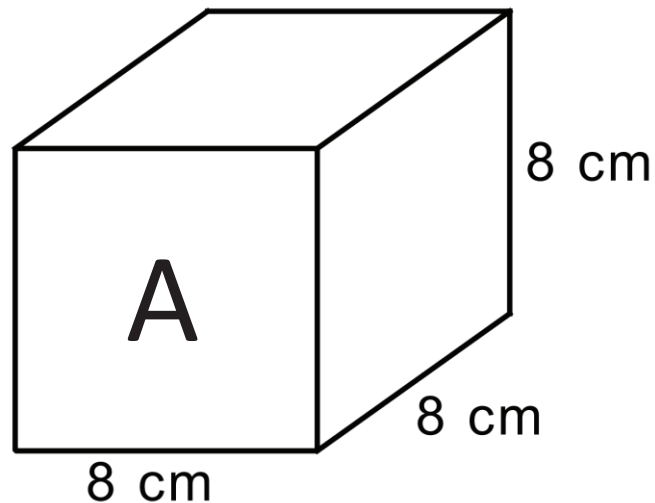
$$512 / 100 = 5.12 \text{ cm}$$

PROBLEM 4A

Water is poured into container A so that it is three quarters full

Container A is then emptied into container B

Calculate the depth of water in B



PROBLEM 4A

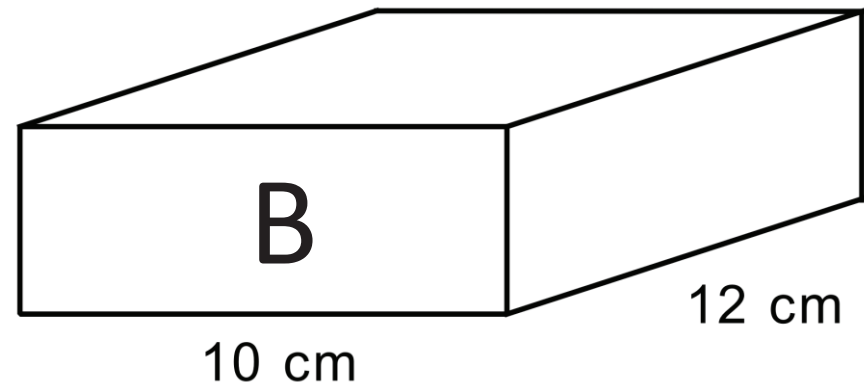
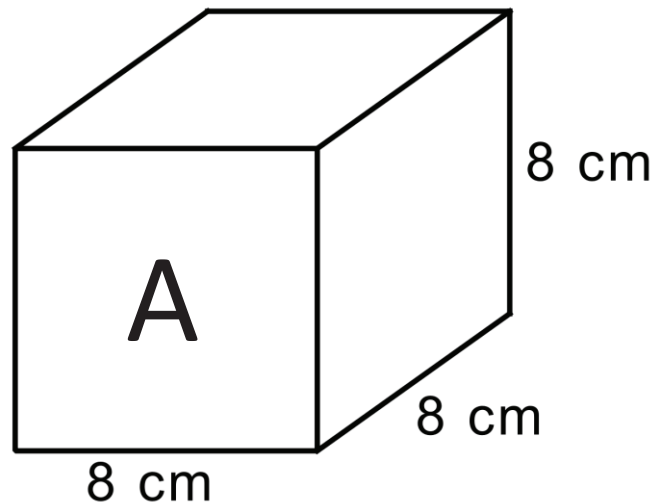
Water is poured into container A so that it is three quarters full

Container A is then emptied into container B

Calculate the depth of water in B

Container A

$$8 \times 8 \times 8 \times \frac{3}{4} = 384 \text{ cm}^3$$



Container B

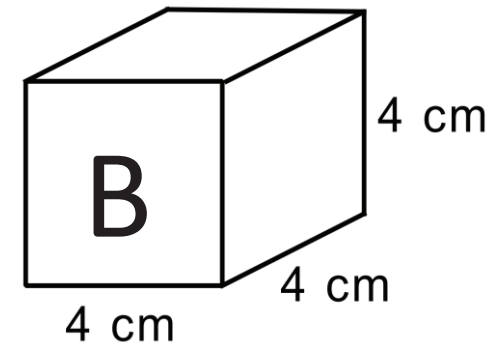
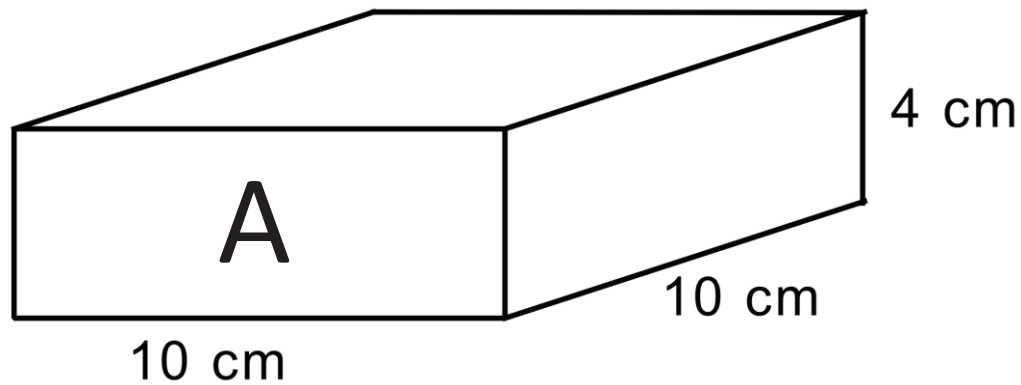
$$10 \times 12 = 120 \text{ cm}^2$$

$$384 \div 120 = 3.2 \text{ cm}$$

PROBLEM 4B

Water is poured into container A so that it is 80% full

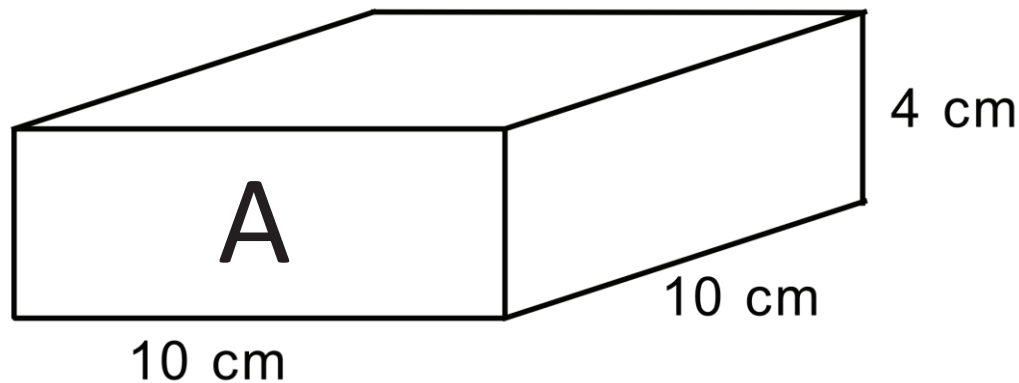
How many containers the same size as container B, can be filled using the water in A?



PROBLEM 4B

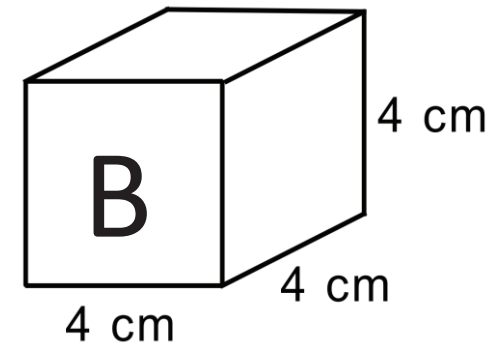
Water is poured into container A so that it is 80% full

How many containers the same size as container B, can be filled using the water in A?



Container A

$$10 \times 10 \times 4 \times 0.8 = 320 \text{ cm}^3$$



Container B

$$4 \times 4 \times 4 = 64 \text{ cm}^3$$

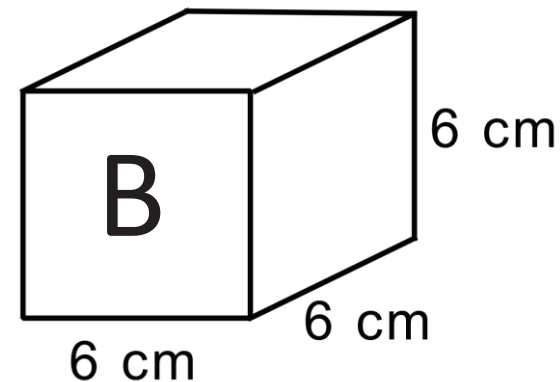
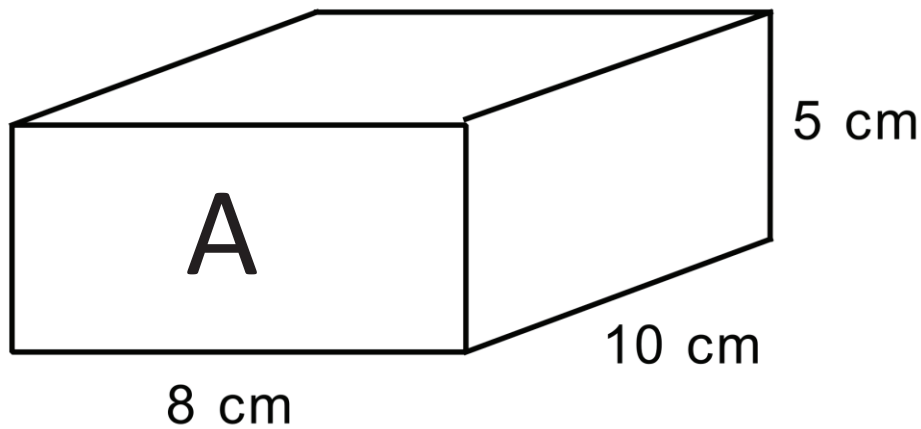
$$320 \div 64 = 5 \text{ containers}$$

PROBLEM 4C

Water is poured into container A so that it is 75% full

Container B is then filled using some of the water from container A

Calculate the depth of water left in container A

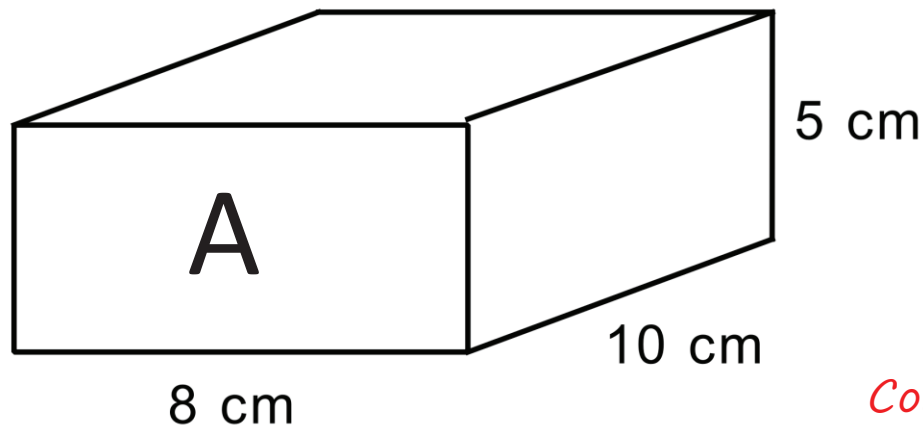


PROBLEM 4C

Water is poured into container A so that it is 75% full

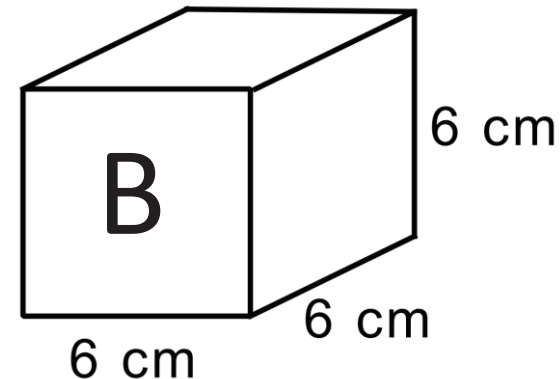
Container B is then filled using some of the water from container A

Calculate the depth of water left in container A



Container A

$$8 \times 10 \times 5 \times 0.75 = 300 \text{ cm}^3$$



Container B

$$6 \times 6 \times 6 = 216 \text{ cm}^3$$

$$300 - 216 = 84 \text{ cm}^3 \text{ left in}$$

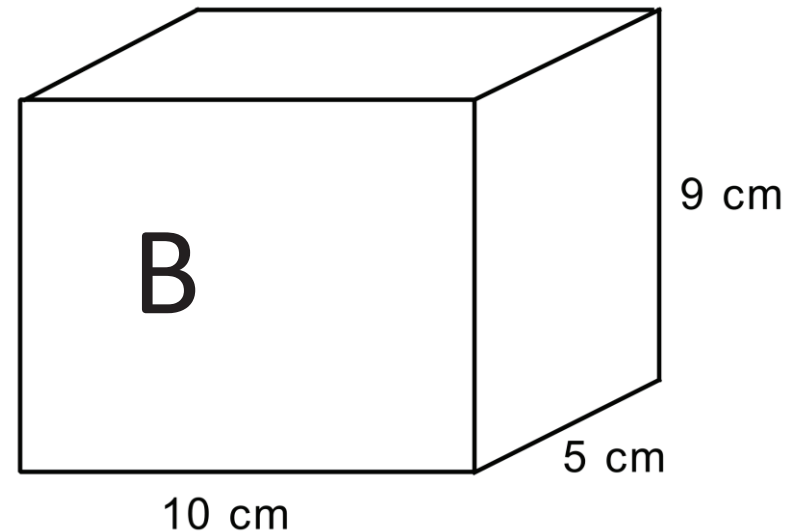
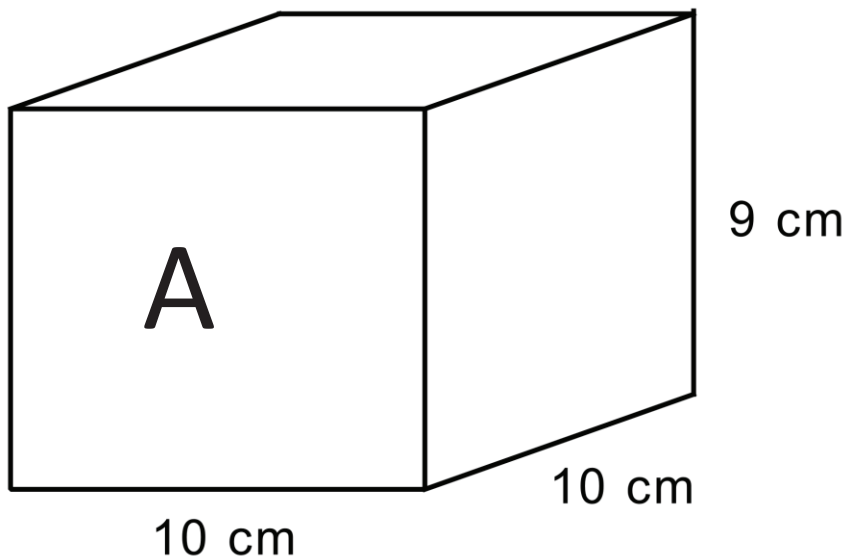
$$A \quad 84 \div (10 \times 8) = 1.05 \text{ cm}$$

PROBLEM 4D

Container A is filled with water.

30% of the water in A then poured into B.

Calculate the difference in the depth of the water in the two containers.



PROBLEM 4D

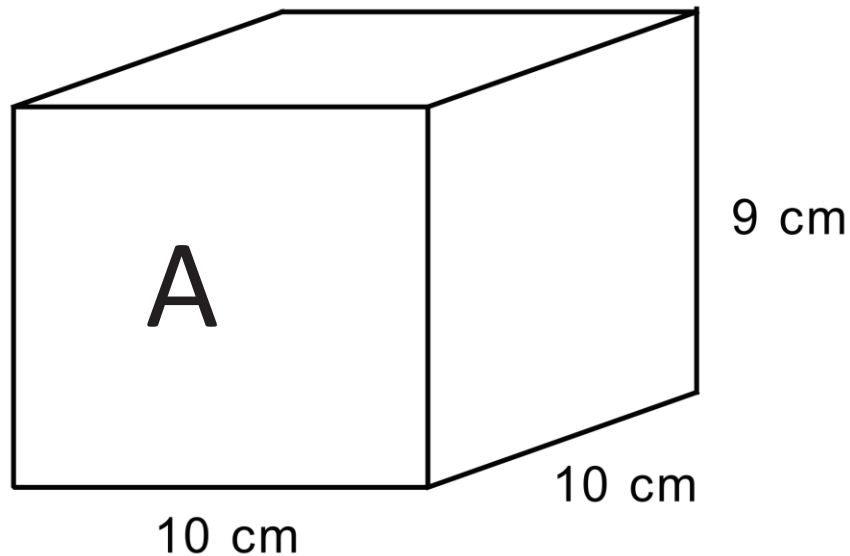
Container A is filled with water.

30% of the water in A then poured into B.

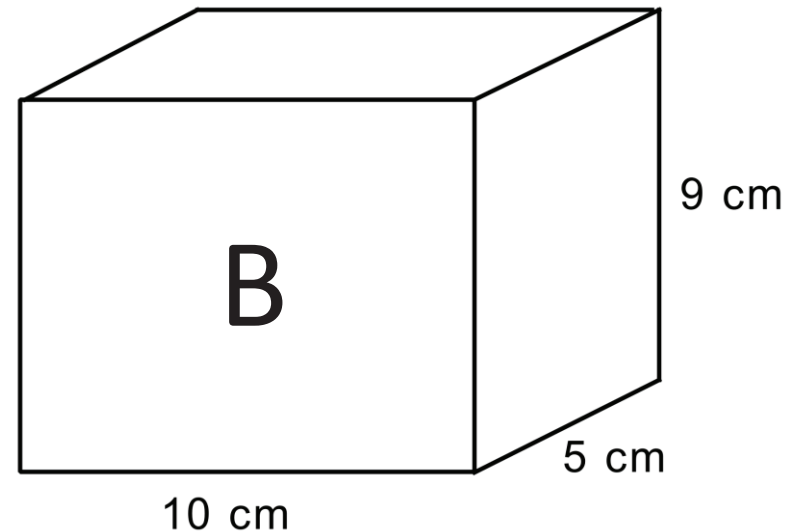
Calculate the difference in the depth of the water in the two containers.

Container A

$$10 \times 10 \times 9 = 900 \text{ cm}^3$$



$$0.3 \times 900 = 270 \text{ cm}^3 \text{ in B}$$



$$630 \div 100 = 6.3 \text{ cm}$$

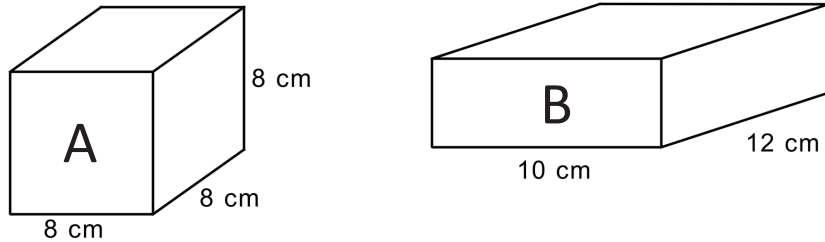
$$270 \div 50 = 5.4 \text{ cm} \quad \text{Difference} = 0.9 \text{ cm}$$

PROBLEM 4A

Water is poured into container A so that it is three quarters full

Container A is then emptied into container B

Calculate the depth of water in B

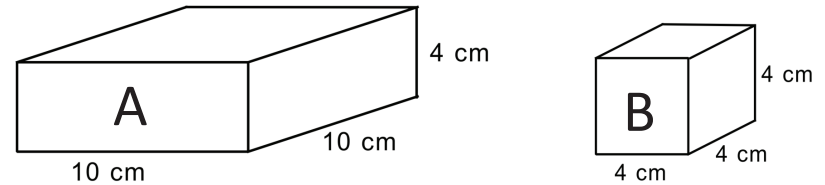


www.mathsbox.org.uk

PROBLEM 4B

Water is poured into container A so that it is 80% full

How many containers the same size as container B, can be filled using the water in A?



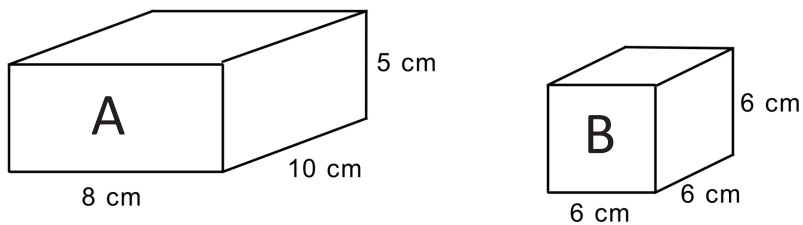
www.mathsbox.org.uk

PROBLEM 4C

Water is poured into container A so that it is 75% full

Container B is then filled using some of the water from container A

Calculate the depth of water left in container A



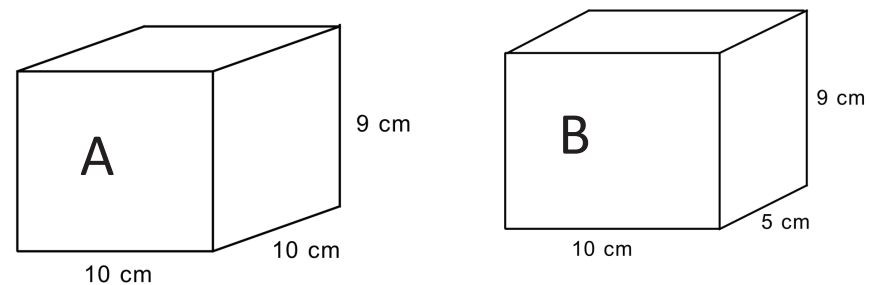
www.mathsbox.org.uk

PROBLEM 4D

Container A is filled with water.

30% of the water in A then poured into B.

Calculate the difference in the depth of the water in the two containers.



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PROBLEM 4A

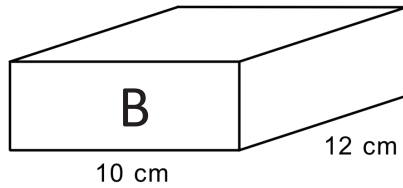
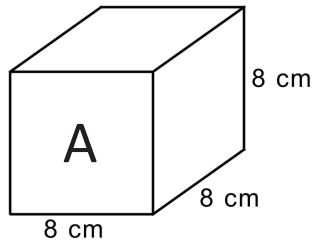
Water is poured into container A so that it is three quarters full

Container A is then emptied into container B

Calculate the depth of water in B

Container A

$$8 \times 8 \times 8 \times \frac{3}{4} = 384 \text{ cm}^3$$



Container B

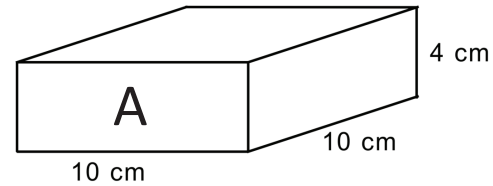
$$10 \times 12 = 120 \text{ cm}^2$$

$$384 \div 120 = 3.2 \text{ cm}$$

PROBLEM 4B

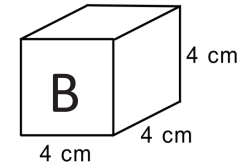
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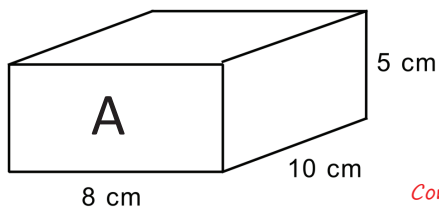
$$320 \div 64 = 5 \text{ containers}$$

PROBLEM 4C

Water is poured into container A so that it is 75% full

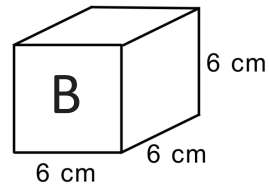
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Container A

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$$A \quad 84 \div (10 \times 8) = 1.05 \text{ cm}$$

PROBLEM 4D

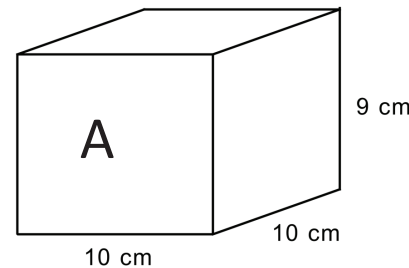
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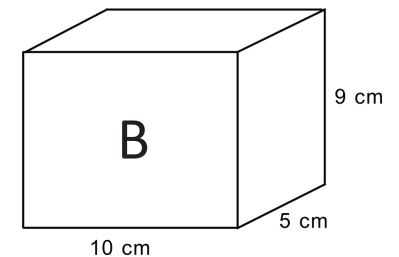
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