Intermediate Numeracy Nov 2018 P2 Q2

Mixing 200 ml of white paint with 10 ml of red paint and 5 ml of blue paint makes light purple paint.

Paint is sold in tins of size 250 ml, 500 ml and 1 litre.

Jana is going to make some light purple paint.
She does not want to have any white, red or blue paint left over.
Jana wants to buy as **few tins of paint as possible**.

She buys a 250 ml tin of blue paint.

How many tins of paint will Jana need to buy altogether?
Complete the table below.   [6]

Colour of paint	Size of tin	Number of tins
Blue	250 ml	1
Red	....	....
White	....	....
	Total number of tins of paint = ...	

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Intermediate Numeracy Summer 2019
Aled and Gareth went on holiday to France.

(a)   The total cost of the holiday was £660.

   •   Aled's mother paid $\frac{1}{3}$ of the total cost.

   •   Aled and Gareth shared the remaining cost in the ratio 1 : 9.

   (i)   Calculate how much each person paid towards the cost of the holiday.   [4]

   (ii)   Explain how you could use your answers to check that they are correct.   [1]

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Intermediate Numeracy Summer 2019 P2 Q2b

(b)   Edmund plans to use the recipe shown to make soup.

Carrot soup, serves 4 people

450g carrots
0·8 litres stock
4 tablespoons of cream
2 onions

He starts to write the recipe for serving 25 people.

Carrot soup to serve 25 people

.... g carrots

.... litres stock

.... tablespoons of cream

.... **whole** onions

Edmund does not want part of an onion left over.
Complete the recipe for Edmund.   [3]
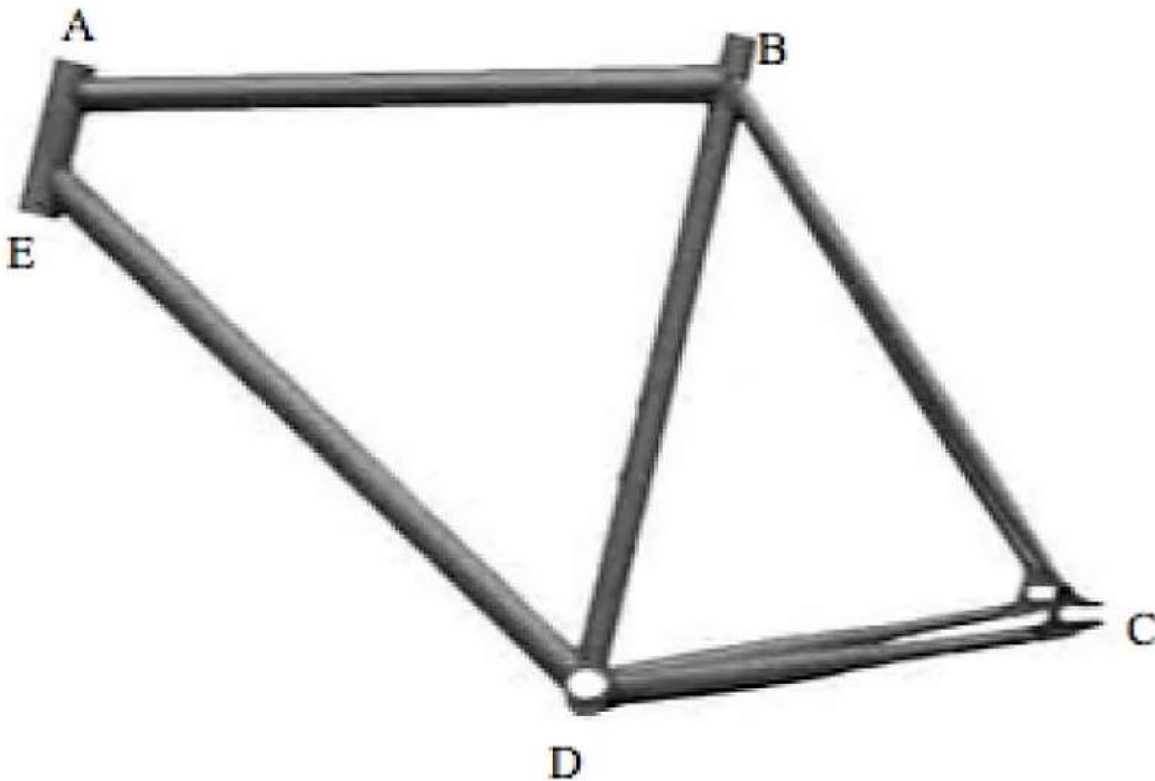
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Intermediate Numeracy Sam 2 P2 Q3a

Bikes are built around a frame.

The diagram below is a scale drawing of a bike frame.
It is drawn to a scale of 1: 8.

(a)   Write down an approximate length of the cross bar *AB*.
           Give you answer in **metres**.

                                                                                                                              [2]

Intermediate Numeracy Sam 1 P1 Q4

You will be assessed on the quality of your organisation, communication and accuracy in writing in this question.

Sam and Laura own $\frac{3}{4}$ of the company *Dragon CarCare*.

They each own $\frac{1}{2}$ of this $\frac{3}{4}$ share.

It cost a total of £8000 to set up the original business.
This set-up cost was paid in proportion to the share each person has in the business.
After 6 months, Laura received £3200 as her share of the profits so far.

Did Laura make a profit on her original investment or did she make a loss?

You must show all your working and state how much profit or loss Laura made.

[6]

Intermediate Maths Summer 2019 P2 Q5

In this question, you will be assessed on the quality of your organisation, communication and accuracy in writing.

18% of £256 is shared in the ratio 2 : 1.
Calculate the value of the larger share.
Give your answer to the nearest 10p.

You must show all your working.

[5 + 2 OCW]

Intermediate Numeracy Summer 2017 P1 Q5a

(a)   Jasmine entered herself, Sophie and Bryn as a group in a talent contest.
      Bryn only had a minor part.

      Bryn, Sophie and Jasmine won the contest.
      They shared the prize money in the ratio 2 : 6 : 7, with Bryn getting the smallest share.
      Jasmine won £560, the largest share.

      (i)   How much money did Bryn and Sophie each win?   [4]

      (ii)   Jasmine gave 15% of her winnings to charity.
             How much did Jasmine have left?   [2]

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Intermediate Numeracy Summer 2017 P2 Q6ai

(a)   Gustav is making some scones for his sister's birthday party.

      +--+
      | Recipe to make **12 scones** |
      | |
      | 450g self raising flour |
      | 2 teaspoons of baking powder |
      | 75g butter |
      | 50g caster sugar |
      | 2 eggs |
      | 225ml milk |
      | |
      | Bake at **428°F** for 10 to 15 minutes |
      +--+

      (i)   How much self raising flour will Gustav need to make 30 scones?
             Circle your answer.   [1]

      900g   1000g   1100g   1125g   1350g

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Intermediate Numeracy Nov 2018 P2 Q6b

Emyr has set his lawn mower to work at a constant speed of 2000m per hour.
He walks a distance of 300m when he cuts his lawn.

(b)   Emyr cuts his lawn 25 times a year.
      He uses 4·5 litres of petrol in his lawn mower each year.

      How much petrol does the lawn mower use for every 100 metres that Emyr walks?
      Give your answer in litres.   [3]

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Intermediate Numeracy Sam 2 P1_Q6

> **Ingredients to make 4 pancakes**
>
> 55 g plain flour
> 1 egg
> 100 ml milk
> 37·5 ml water
> 25 g butter

> **Useful information: metric and imperial units**
>
> 4 ounces is approximately 110 g
> 25 ml of milk or water is approximately 1 fluid ounce

(a)   Using the recipe shown above, calculate the quantity of plain flour needed to make 48 pancakes. **Give your answer in ounces**.

[3]

(b)   Owen works in a school kitchen.
He uses the recipe information for pancakes shown above.
He has measured out the plain flour, milk and butter and placed them with the eggs in a large bowl.
Owen measures out 150 fluid ounces of water to add to his other pancake ingredients in the bowl.
How many pancakes is Owen making?

[3]

Intermediate Maths Nov 2017 P2 Q6b

(b)   Share 25·8 kg in the ratio 5 : 1.   [2]

Intermediate Numeracy Summer 2019 P2 Q7c

(c)   In a portion of baked beans there is:
  •   1·85 g of salt,
  •   11·7 g of sugar.

For women, the recommended daily allowance of:
  •   salt is 6 g,
  •   sugar is 90 g.

Consider a portion of baked beans.
Is it salt or sugar that provides the greater proportion of the recommended daily allowance for women?
You must show all your working.   [3]

Intermediate Maths Nov 2018 P1 Q12a

(a)   Share £720 in the ratio 2 : 7.   [2]

Intermediate Maths Sample 1 P1 Q13a

(a)   Calculate the largest share when £400 is shared in the ratio 1 : 2 : 5.   [2]

Intermediate Maths Nov 2017 P1 Q17

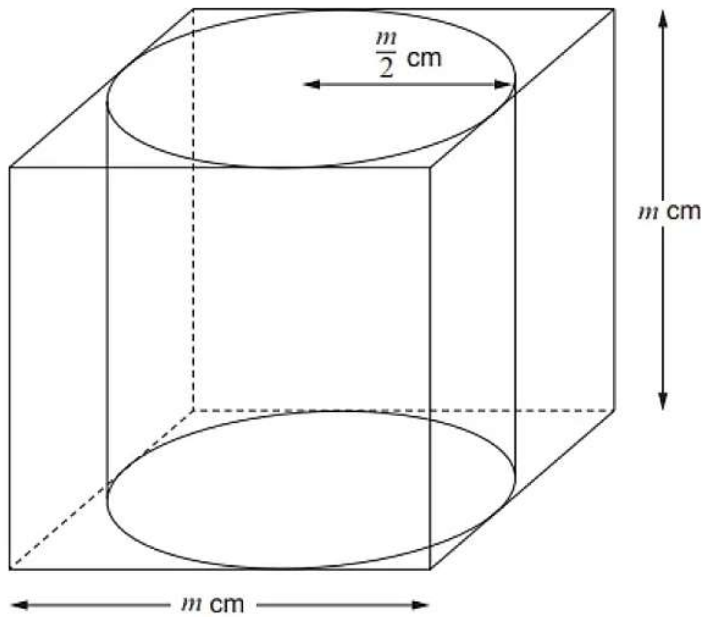A cylinder just fits inside a hollow cube with sides of length m cm.

Diagram not drawn to scale

The radius of the cylinder is $\frac{m}{2}$ cm.

The height of the cylinder is m cm.

The ratio of the volume of the cube to the volume of the cylinder is given by

volume of cube : volume of cylinder

$$= k : \pi,$$

where k is a number.

Find the value of k.
You must show all your working.   [4]