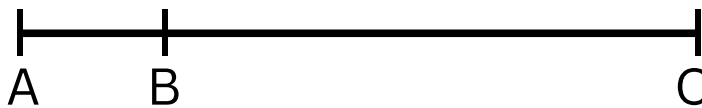


GCSE Predicted Topic Questions

Sharing Ratio

Example 1

ABC is a straight line.



The length of BC is four times the length of AB.

BC = 100 cm. Work out the length of AC.

Solution:

$$BC = 100$$

$$\frac{100}{4} = 25$$

$$BC : AB$$

$$4 : 1$$

To find the length of AC we will multiply 5 by 25 .

$$5 \times 25 = 125 \text{ cm}$$

Example 2

Given that $a:b=4:5$ and $b:c=3:2$

Find the ratio $a:b:c$

Give your answer in its simplest form.

Solution:

	$a : b$	$b : c$	
	$4 : 5$	$3 : 2$	
$\times 3$	$\downarrow$	$\downarrow$	$\times 5$ (make the 'b' same)
	$12 : 15$	$15 : 10$	

$$\begin{array}{l} a : b : c \\ 12 : 15 : 10 \end{array}$$

GCSE Predicted Topic Questions

Example 3

Bob is going to make some Orange paint.

He needs to mix red paint ,yellow paint and white paint in the ratio of 5 : 4 : 1.

Bob wants to make 750ml of orange paint .

Bob has:

400 ml of red paint

300 ml of yellow paint

200 ml of white paint

Does Bob have enough red paint, yellow paint and white paint to make the orange paint? You must show all your working.

Solution:

$$5 + 4 + 1 = 10 \text{ parts}$$

$$\frac{750}{10} = 75$$

red paint

75	75	75	75	75
----	----	----	----	----

$$5 \times 75 = 375 (400 > 375)$$

yellow paint

75	75	75	75
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$$4 \times 75 = 300 (300 = 300)$$

white paint

75

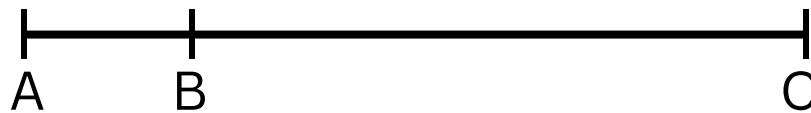
$$1 \times 75 = 75 (200 > 75)$$

Yes, Bob have enough paint to make orange paint.

GCSE Predicted Topic Questions

Sharing Ratio

- 1 ABC is a straight line.



The length of BC is four times the length of AB.

BC = 200 cm

Work out the length of AC

(Total for question 1 is 3 marks)

- 2 Alex is going to make Orange paint.

He needs to mix red paint ,yellow paint and white paint in the ratio of 5 : 3 : 2.

Alex wants to make 650ml of orange paint .

Alex has:

400 ml of red paint

250 ml of yellow paint

200 ml of white paint

Does Alex have enough red paint, yellow paint and white paint to make the orange paint? You must show all your working.

(Total for question 2 is 4 marks)

GCSE Predicted Topic Questions

- 3 Harry is going to make a drink using the instructions below.

Mix 2 parts of fruit juice
with 5 parts of sparkling water

Harry has 160ml of fruit juice and 200ml of sparkling water.

What is the greatest amount of the drink Harry can make?

(Total for question 3 is 3 marks)

- 4 The ratio of dogs to cats is 5:4
The ratio of fish to dogs is 8:1

Find the ratio of cats to fish.

Give your answer in its simplest form.

(Total for question 4 is 3 marks)

GCSE Predicted Topic Questions

5 XYZ is a straight line.



The length of XY is five times the length of YZ.

$$XY = 150\text{cm}$$

Work out the length of XZ.

(Total for question 5 is 3 marks)

6 Tony is going to make some concrete mix.
He needs to mix cement, sand and gravel in the
ratio 2 : 3 : 4 by weight.
Tony wants to make 270 Kg of concrete mix .
Tony has:

50 kg of cement
80 kg of sand
100 kg of gravel

Does Tony have enough cement, sand and gravel
to make the concrete mix? You must show all your
working.

(Total for question 6 is 4 marks)

GCSE Predicted Topic Questions

- 7 Given that $a:b=3:7$ and $a:c=2:3$
Find the ratio $a:b:c$

Give your answer in its simplest form.

(Total for question 7 is 3 marks)

- 8 Steve prepares the ingredients for pizzas.
He uses cheese, topping and dough in the ratio
 $4:3:5$.
Steve uses 90 grams of dough.

Work out the number of grams of cheese and the
number of grams of topping Steve uses.

(Total for question 8 is 3 marks)

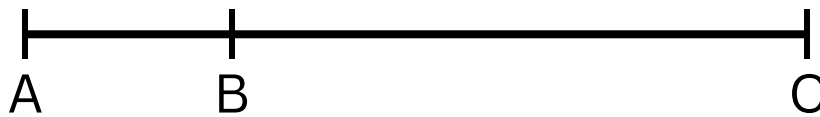
GCSE Predicted Topic Questions

- 9 An artist is making orange paint by mixing red paint and yellow paint in the ratio of 8:10
The artist decides to use 50 ml of yellow paint.

Work out how much red paint he should use?

(Total for question 9 is 3 marks)

- 10 ABC is a straight line.



The length of BC is three times the length of AB.
 $AC = 60\text{cm}$

Workout the length of BC.

(Total for question 10 is 3 marks)

GCSE Predicted Topic Questions

- 11 A baker makes bread using the ratio of flour (cups) to water (cups) of 5:4
The baker is going to use 30 cups of flour.
Work out how much water the baker should use?

(Total for question 11 is 3 marks)

- 12 David is making some cookies.
He needs to mix flour, butter and sugar in the ratio of 6 : 4 : 2 by weight.
David wants to make 240 grams of cookies .
David has:
- 200g of flour
 - 100g of butter
 - 100g of sugar

Does David have enough flour, butter and sugar to make the cookies? You must show all your working.

(Total for question 12 is 4 marks)
