

Surname	
Other Names	
Candidate's Signature	

## GCSE 9 - 1 Questions

**Ratio 1**

**Calculator Allowed**

### INSTRUCTIONS TO CANDIDATES

Write your name in the space provided.

Write your answers in the spaces provided in this question paper.

Answer ALL questions.

Any working should be clearly shown in the spaces provided since marks may be awarded for partially correct solutions.

**Total Marks :**

- 1) Jack divided marbles between himself and Jill in the ratio 4:3

Jack then had 84 marbles.

How many marbles were there in total?

Answer \_\_\_\_\_ [2]

- 2) £450 was divided between Caoimhe and Padraig in the ratio 7:2  
How much did each get?

Answer Caoimhe £ \_\_\_\_\_

Padraig £ \_\_\_\_\_ [2]

- 3) The total number of spectators attending a recent sports event was 10500  
Of these the men, women and children were in the ratio 12:7:6  
How many of each were present?

Answer \_\_\_\_\_ men

Answer \_\_\_\_\_ women

Answer \_\_\_\_\_ children  
[3]

- 4) Share 252 kg in the ratio 5:1.

[2]

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- 5) Six hundred and seventy two pounds is given to Jane and Ian to be shared in the ratio 7:9.  
How much do they each receive?

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Jane receives ..... Ian receives .....

[3]

- 6) The exchange rate for £ to euro was  $\text{£}1 = \text{€}1.15$   
Jim bought a pair of jeans which cost €90  
How much did the jeans cost in £?

Answer £ \_\_\_\_\_ [2]

- 7) Three farmers shared an order for fertiliser between them in the ratio 3:4:7.  
 Jade got the largest share.  
 Bethan got the smallest share.  
 Noah's share was 60 kg.  
 Calculate how much of the fertiliser Jade and Bethan each received.

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Jade ..... kg

Bethan ..... kg

[4]

- 8) A metal rod is to be cut into three pieces in the ratio 2:3:7.  
 The total length of the metal rod is 72.12 cm.  
 Calculate the lengths of the three pieces.

[3]

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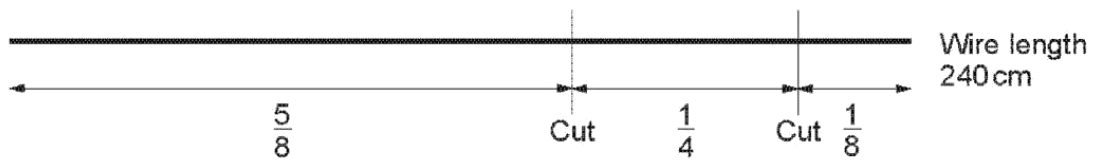
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..... cm, ..... cm and ..... cm

9)

- (a) A length of wire measuring 240 cm is to be cut into 3 pieces as shown in the diagram.



Calculate the length of each of the 3 pieces of wire.

[2]

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- (b) A different piece of wire of length 308 cm is cut in the ratio 2 : 4 : 5.  
Calculate the length of each of the 3 pieces of wire.

[3]

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10) Seven friends hire a boat, **The Wave**, to explore where dolphins swim.



**The Wave**

- (a) The cost of hiring **The Wave** for a week is £2380.  
Two sponsors, *Connelly Boats* and *Water Watch*, pay part of the hire cost.

The cost of hiring **The Wave** is shared in the ratio 2 : 3 : 5 with

- *Connelly Boats* paying the **smallest** share
- *Water Watch* paying the **largest** share
- The seven friends sharing the remaining cost equally.

How much does *Connelly Boats* pay?

How much does *Water Watch* pay?

How much does each of the seven friends pay?

You must show all your working.

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11)

Agnes and Bryn both buy identical pizzas to share with friends.



Agnes gives Carwyn  $\frac{2}{5}$  of her pizza.

Bryn shares his pizza in the ratio 1 : 2 : 3 : 4 and gives Dafydd the largest piece.

Does Carwyn have:

- the same size piece of pizza as Dafydd, or
- a larger piece of pizza than Dafydd, or
- a smaller piece of pizza than Dafydd?

You must explain your answer and show all your working.

[3]

[illegible]



12)

Alfie sells 480 raffle tickets, at 50p each, to raise money for charity.

There are 3 different raffle prizes: a bike, roller skates and a teddy bear.

The bike and the roller skates were prizes donated by a local sports shop.

Alfie paid

- £12 for the teddy bear prize,
- £14 to have the raffle tickets printed, and
- £32 to print advertising posters.

After paying the costs, Alfie donates any money raised from the raffle to charity.

He intends to give the money to a children's charity and to the local hospice in the ratio 13:17.

Calculate how much money Alfie donates to the local hospice.

Give your answer correct to the nearest £.

[4]

[illegible]