

Level 1 - Ratio

1) A drink of orange uses a mixture of 1 part squash to 4 parts water. A large birthday party requires 20 Litres of the orange drink to be made.






Jenny wants to buy the orange juice from the shop in one go. She thinks she needs to spend over £5 on squash.



Show if Jenny is correct.

(4)

2) Some mobile phone sizes are shown below as per a shop item list. Bill would like to choose a phone that has a width to length ratio of 1 : 2.5 Which phone should he choose? Show your workings.

	phone A	20Gb	7cm x 14cm	£450
	phone B	12Gb	8cm x 20cm	£500
	phone C	17Gb	6cm x 13cm	£370
	phone D	20Gb	7cm x 21cm	£600
	phone E	15Gb	8cm x 15cm	£650

(2)

3) A cake recipe shown below has missing values in its table of ingredients for various quantities of cake produced. Complete the table with the missing values.

	Eggs	Sugar	Flour	Milk
4 persons	6	200g	300g	
6 persons		300g		75ml

(3)

4) A mixture of paint is used for Tim's flat. To get the colour correct he needs to mix Blue and Yellow paint in the ratio 1 Blue to 3 Yellow.

Shown are the tins of paint Tim can buy.

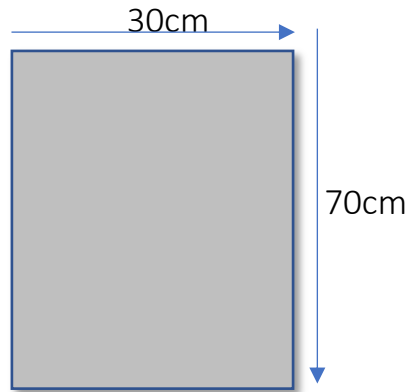
	<p>BLUE PAINT 1 tin 5 L £12</p>		<p>YELLOW PAINT 1 tin 7L £14</p>
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Tim works out he will need 16L of the blue/yellow mixture to cover all the walls.

Work out the total cost of Tim's painting job, show all your workings.

(4)

5) A family photo is increased in size so that each length is 1:4 bigger than its original size. The dimensions of the enlarged photo are shown below.



Amit keeps the original photo and places the larger on her wall. She thinks that the original smaller photo can fit into a frame 7cm x 15cm. Show if she is correct.

(2)

6) At a gym a record is kept of members starting and finishing weights, after a time period, to compare their weight lost. All members are attempting to lose weight in a ratio of 6kg : 5kg from their starting weight to finishing weight.

	Member 1007	Member 1009	Member 1024	Member 1035	Member 1044
Starting Weight	85kg	90kg	102kg	95kg	97kg
Finishing Weight	80kg	75kg	91kg	82kg	92kg

Only one member has achieved this weight loss. Find the member number and show how you have calculated that this member has lost the correct weight in a ratio of 6:5

(2)

7) Steve would like to exchange £300 into dollars. He is using the current pounds to dollars conversion as shown on his mobile. He thinks he will get at least \$400 after paying the exchange rate fee. Show if he is correct.

1 Pound sterling equals

1.34 United States Dollar

15 Dec, 15:34 UTC · Disclaimer

<input type="text" value="1"/>	Pound sterling ▼	Exchange Fee \$5
<input type="text" value="1.34"/>	United States Dolla▼	

(4)

8) A tile pattern is used on a floor in a hotel. The tiles are placed in a repeated pattern of 1 square then 2 triangles, one red and one green cut from whole square tiles.



1 box of yellow square tiles	£2	for 15 tiles
1 box of red square tiles	£3	for 15 tiles
1 box of green square tiles	£3	for 15 tiles

A total of 800 whole tile squares are required to cover the entire hotel floor.

Cost out the job of laying these tiles on the hotel floor.

(5)

BLANK SPACE FOR WORKINGS