



Ratio and Proportion

Ratio problems/Recipes

5a. Shape A has been enlarged by different scale factors to make shapes B, C and D.

Shape	Length	Width
A	3cm	4cm
B		12cm
C	15cm	
D	30cm	

Calculate the missing measurements.



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5b. Shape A has been reduced by different scale factors to make shapes B, C and D.

Shape	Length	Width
A	12cm	24cm
B		6cm
C	6cm	
D	2cm	

Calculate the missing measurements.



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7a. The ratio of strawberries to grapes is 3:2.

Pippa has 25 pieces of fruit in total.

Calculate the number of strawberries and grapes.



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7b. The ratio of peas to carrots is 5:4.

Leah has 108 vegetables in total.

Calculate the number of peas and carrots.



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8a. Jake is buying some paint.

The ratio of white to blue to green paint is 20:50:100.

If he buys 200 litres of blue paint, how much white and green paint will he need?



8b. Jaiden is buying some paint

The ratio of white to blue to green paint is 5:7:8.

If he buys 64 litres of green paint, how much white and blue paint will he need?



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5. Here is part of a recipe for 6 Yorkshire puddings.

192g of plain flour
3 eggs
282ml of milk

	Flour	Eggs	Milk
1 person	g		ml
8 people	g		ml

A. Calculate the quantities needed for 1 person.

B. Calculate the quantities needed for 8 people.

2. The recipe below makes five sausage rolls. How much of each ingredient would I need if I made four times as many sausage rolls?

500 g sausage meat

_____ g sausage meat

1.5 teaspoons mixed herbs

_____ teaspoons mixed herbs

1 tablespoon tomato puree

_____ tablespoons tomato puree

25 g cheddar cheese

_____ g cheddar cheese

750 g puff pastry

_____ g puff pastry

1 egg

_____ eggs

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1. The recipe below serves 8 people, but Hannah wants to make it for 24 people. She has upscaled it and written out the new recipe.

Serves 8 people

1 kg minced beef
2 red peppers
800 g chopped tomatoes
2 large onions
610 g kidney beans
100 g chilli con carne mix
400 ml boiling water

Serves 24 people

3 kg minced beef
6 red peppers
1,600 g chopped tomatoes
4 large onions
1.83 kg kidney beans
100 g chilli con carne mix
0.12 L boiling water

Find and explain her mistakes.

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Mistake 1

Mistake 2

Mistake 3

Mistake 4