

Food Glorious Food

KS4

Tuesday - Maths

Ratio and Proportion Exam Style Questions

1. Amy, Beth and Colin share 36 sweets in the ratio 2 : 3 : 4
Work out the number of sweets that each of them receives.
2. 225 grams of flour are needed to make 9 cakes.
Marian wants to make 20 of these cakes.
She has 475 grams of flour.
Does Marian have enough flour to make 20 cakes?
3. Diet Coke is on offer at Morrisons and Sainsburys.
Morrisons: 2 litre bottles on offer 3 for £4.50
Sainsburys: 24 cans x 330ml on offer for £8.85
4. Carrots cost £1 for a 1.2 kg bag at Tesco.
The same type of carrots cost 77 pence for a 700 g bag at ASDA.
Where are the Carrots better value?
5. Potatoes cost £9 for a 12.5 kg bag at a farm shop.
The same type of potatoes cost £1.83 for a 2.5 kg bag at a supermarket.
Where are the potatoes the better value, at the farm shop or at the supermarket?
You must show your working.
6. Two shops, Food Mart and Jim's Store, both sell Kreemy Yoghurts.
At Food Mart Kreemy Yoghurts are on offer 5 for £1.80.
At Jim's Store Kreemy Yoghurts are 3 for £1.05
At which shop are Kreemy Yoghurts the better value for money?
You must show all your working.
7. Two fruit drinks, Fruto and Tropico, are sold in cartons.
(a) Fruto contains only orange and mango.
The ratio of orange to mango is 3 : 2
A carton of Fruto contains a total volume of 250 cm³.
Find the volume of orange in a carton of Fruto.

(b) Tropicco contains only lemon, lime and grapefruit.
The ratios of lemon to lime to grapefruit are 1:2:5
The volume of grapefruit in a carton of Tropicco is 200 cm³.
Find the total volume of Tropicco in a carton.

8. Flaky pastry is made using flour and fat in the ratio 9:7 by weight.
Cassie makes some flaky pastry.
She uses 175 grams of fat.

(a) Work out the weight of flour Cassie uses.
Sweet pastry is made using flour, fat and sugar in the ratio 27:14:9 by weight.
Luke makes some sweet pastry.
The total weight of flour, fat and sugar he uses is 400 grams.

(b) Work out the weight of flour Luke uses.
Elisha makes some flaky pastry and some sweet pastry.
She uses the same weight of flour for the flaky pastry as she does for the sweet pastry.

(c) Work out the ratio of the weight of fat she uses in the flaky pastry to the weight of fat she uses in the sweet pastry.

9. This is a list of ingredients for making a pear and almond crumble for 4 people.

Ingredients for 4 people

80 g plain flour
60 g ground almonds
90 g soft brown sugar
60 g butter
4 ripe pears

Work out the amount of each ingredient needed to make a pear and almond crumble for 10 people.

10. Rosa prepares the ingredients for pizzas.
She uses cheeses, topping and dough in the ratio 2:3:5 Rosa uses 70 grams of dough.
Work out the number of grams of cheese and the number of grams of topping Rose uses.
11. The cost of 4 kg of apples is £3.36
The total cost of 3 kg of apples and 2.5 kg of pears is £4.12.
Work out the cost of 1kg of pears.

12. Here are the ingredients needed to make 500ml of custard.

Custard
Makes 500 ml
400 ml of milk
3 large eggs yolks
50 g sugar
2 teaspoons of corn flour

- a) Work out the amount of sugar needed to make 2000 ml of custard.
- b) Work out the amount of milk needed to make 750 ml of custard.

13. Ann buys 12 kg of potatoes and 5 kg of carrots for £25.60. The potatoes cost £1.50 per kg.
Find the cost of carrots per kg.