

Name:

Exam Style Questions

Recipes



Corbettmaths

Equipment needed: Calculator, pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Video Tutorial

www.corbettmaths.com/contents

Video 256



Answers and Video Solutions



1. Omar is making Shortbread for 16 people.
He has found a recipe with this list of ingredients on a website.



Shortbread

Serves 8

Butter	150g
Caster Sugar	75g
Plain Flour	175g
Cornflour	50g

How much of each ingredient will he need for 16 people?

$\times 2$

Butter:g

300

Caster Sugar:g

150

Plain Flour:g

350

Cornflour:g

100

(3)

2. Here is a recipe for Scones.



Scones

Serves 8

Butter	60g
Flour	260g
Baking Powder	2 teaspoons
Buttermilk	180ml

How much of each ingredient would be needed to make scones for 2 people?

$$\div 4$$

Butter:¹⁵g

Flour:⁶⁵g

Baking Power:^{1/2}teaspoons

Buttermilk:⁴⁵ml

(3)

3. Shown below is a recipe for Stuffed Turkey.



Stuffed Turkey

Serves 4

Turkey	500g
Red Onion	1
Garlic Cloves	2
Chestnut Mushrooms	150g
Spinach	140g
Chicken Stock	300ml

Mary wants to make Stuffed Turkey for 10 people.

How much of each ingredient is needed?

Include units.

$\xrightarrow{\div 2}$ $\xrightarrow{\times 5}$
 Serves 4 Serves 2 Serves 10

500g	250g	1250g (or 1.25kg)	Turkey:
1	$\frac{1}{2}$	$2\frac{1}{2}$	Red Onions:
2	1	5	Garlic Cloves:
150g	75g	375g	Chestnut Mushrooms:
140g	70g	350g	Spinach:
300ml	150ml	750ml	Chicken Stock:

(4)

4. Here is a list of ingredients to make vegetable soup for 6 people.



<p>Serves 6</p> <p>3 onions</p> <p>300g carrots</p> <p>260g potatoes</p> <p>150g celery</p> <p>1.4 litres vegetable stock</p>
--

Jessica wants to make enough soup for 9 people.

Work out how much of each of the ingredients she needs.

$$3 + 6 = 9 \text{ people}$$

Serves 3

1.5 onions

150g carrots

130g potatoes

75g celery

0.7 litres stock

4.5 onions

450g carrots

390g potatoes

225g celery

2.1 litres stock

Onions:4.5.....onions

Carrots:450.....g

Potatoes:390.....g

Celery:225.....g

Vegetable Stock:2.1.....litres

(3)

5. Richard wants to make Shortbread for 3 people.
He has this recipe.



Shortbread

Serves 4

Butter	80g
Caster Sugar	60g
Plain Flour	100g
Cornflour	40g

	$\div 4$	1 person	$\times 3$	3 people
		20g		60g
		15g		45g
		25g		75g
		10g		30g

How much of each ingredient will Richard need for 3 people?

Butter:60.....g

Caster Sugar:45.....g

Plain Flour:75.....g

Cornflour:30.....g

(3)

6. Donna uses this recipe for Chilli Con Carne.



Serves 6 people

1 kilogram of mince
400 grams of tomatoes
3 chillies
600 grams of kidney beans

Donna is going to use this recipe to make Chilli Con Carne for 15 people.

- (a) Work out how many grams of mince she needs.

$$6 + 6 + 3 = 15 \text{ people}$$

$$1\text{kg} + 1\text{kg} + \frac{1}{2}\text{kg} = 2\frac{1}{2}\text{kg}$$

$$2500\text{g}$$

$$\begin{array}{r} 2500 \\ \hline \end{array} \text{g}$$

(2)

Shane uses the same recipe.
He uses 1.2 kilograms of tomatoes.

- (b) How many people is Shane making Chilli Con Carne for?

$$1200 \div 400 = 3$$

$$6 \times 3 = 18$$

$$\begin{array}{r} 18 \text{ people} \\ \hline \end{array}$$

(2)

7.

Thomas has a recipe for making Rice Krispie cakes.

The recipe uses 120g of chocolate and 80g of Rice Krispies to make 12 cakes.



(a) How much chocolate should Thomas use to make 30 cakes?

$$120g \div 12 = 10g \text{ per cake}$$

$$10g \times 30 = 300g$$

$$\begin{array}{r} 300 \\ \hline \end{array} g$$

(2)

(b) What is 120g out of 200g expressed as a percentage?

$$\frac{120}{200} = \frac{60}{100}$$

$$\begin{array}{r} 60 \\ \hline \end{array} \%$$

(1)

8. Ella is making chocolate rice krispy cakes.



Here is a list of ingredients needed to make 8 cakes.

<p>Makes 8 150g chocolate 100g butter 60ml golden syrup 100g Rice Krispies</p>

x 4.5

Makes 36

675g

450g

270ml

450g

Ella has

400g chocolate
175g butter
100ml golden syrup
280g Rice Krispies

Ella is going to make 36 cakes.

Work out how much more of each ingredient Ella needs.

$$36 \div 8 = 4.5$$

$$675 - 400 = 275g$$

$$450 - 175 = 275g$$

$$270 - 100 = 170ml$$

$$450 - 280 = 170g$$

Chocolate:²⁷⁵g

Butter:²⁷⁵g

Golden Syrup:¹⁷⁰ml

Rice Krispies:¹⁷⁰g

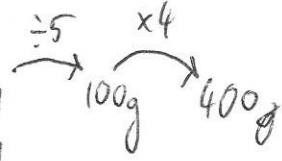
(4)

9. Jo has a recipe for Bolognese Sauce,



Bolognese Sauce

Minced Beef	500 g
Chopped Tomatoes	750 g
Mushrooms	40 g
Chicken Stock	150 ml



She only has 400g of minced beef.

How much of the other ingredients should she use?

CT	750g	$\xrightarrow{\div 5}$	150g	$\xrightarrow{\times 4}$	600g
M	40g		8g		32g
CS	150ml		30ml		120ml

Chopped Tomatoes: 600g

Mushrooms: 32g

Chicken Stock: 120ml

(3)

10. Nancy is making cupcakes.



Makes 15
120g flour
135g caster sugar
300g icing sugar
3 eggs
260g butter

Nancy has

360g flour	$360 \div 120 = 3$
450g caster sugar	$450 \div 135 = 3.33...$
850g icing sugar	$850 \div 300 = 2.833...$
12 eggs	$12 \div 3 = 4$
760g butter	$760 \div 260 = 2.923...$

Work out the greatest number of cupcakes that Nancy can make.

method 1

$$15 \times 2.833... = 42.5$$

or

method 2

for 1 cupcake:

8g flour	$360 \div 8 = 45$
9g caster sugar	$450 \div 9 = 50$
20g icing sugar	$850 \div 20 = 42.5$
$\frac{1}{5}$ egg	$12 \div \frac{1}{5} = 60$
17.33...g butter	$760 \div 17.33... = 43.8...$

42

(4)

11. Harry is making doughnuts to sell for a charity fundraiser.



Here is the list of ingredients needed to make 12 doughnuts.

<p>Makes 12 300g flour 45g caster sugar 2 eggs 60g butter</p>
--

$$45 \div 12 = 3.75 \text{ g per doughnut.}$$

He has 290g of caster sugar and plenty of the other ingredients.

Harry makes as many as possible and sells all the doughnuts for £1.80 each.

How much money does Harry raise for charity?

$$290 \div 3.75 = 77.33 \dots \text{ doughnuts}$$

$$\text{Max} \rightarrow 77 \text{ doughnuts.}$$

$$77 \times 1.80 = \pounds 138.60$$

$$\pounds 138.60$$

(4)

12. The table shows information about the protein content of yoghurt bars.



	per 100g	per bar
Protein	5.75g	2.3g

The yoghurt bars are sold in 520g packs.

- (a) Work out how many bars there are in a pack.

$$5.75 \div 2.3 = 2.5$$

$$100 \div 2.5 = 40 \text{g per bar}$$

$$520 \div 40 = 13$$

13 bars

(2)

Snack size yoghurt bars are made using the same recipe.
Snack size bars are sold in 140g packs.
There are 5 bars in each pack.

- (b) Complete the table for the snack size biscuits.

	per 100g	per snack size bar
Protein	5.75g	1.61g

$$140 \div 5 = 28 \text{g per bar}$$

$$5.75\% \text{ protein}$$

$$28 \div 100 = 0.28$$

$$0.28 \times 5.75 = 1.61$$

(3)

13. Adil is making concrete using cement, sand and gravel in the ratio 1 : 2 : 3



He has 43kg cement
83kg sand
151kg gravel

What is the maximum amount of concrete that Adil can make?

43 kg cement ✓

86 kg sand ✗

129 kg gravel ✓

41.5 kg cement ✓

83 kg sand ✓

124.5 kg gravel ✓

50.3 kg cement ✗

100.6 kg sand ✗

151 kg gravel ✓

..... 249 kg
(2)

$$41.5 + 83 + 124.5 = 249 \text{ kg}$$
