

## GCSE QUESTIONS

### Q1. NON-CALCULATOR

8 identical pens cost £12  
Work out the cost of 10 of these pens.

£ .....

(Total for question = 2 marks)

### Q2. NON-CALCULATOR

3 kg of meat costs £54  
Nina buys 2 kg of the meat. Work out how much Nina pays.

£ .....

(Total for question = 2 marks)

### Q3. NON-CALCULATOR

Add 100 ml of juice  
to 2 litres of water

Here are the instructions for making a drink.

Dev uses 5 litres of water to make the drink. How much drink has he made?

.....  
(Total for question = 3 marks)

### Q4. NON-CALCULATOR

#### Ingredients for 16 flapjacks

120 g butter  
140 g brown sugar  
250 g oats  
2 tablespoons syrup

Here is a list of ingredients for making 16 flapjacks.

Jenny wants to make 24 flapjacks. Work out how much of each of the ingredients she needs.

butter ..... g

brown sugar ..... g

oats ..... g

syrup ..... tablespoons

**(Total for question = 3 marks)**

**Q5. NON-CALCULATOR**

Deon needs 50 g of sugar to make 15 biscuits. She also needs:

- three times as much flour as sugar
- two times as much butter as sugar

Deon is going to make 60 biscuits.

(a) Work out the amount of flour she needs.

..... g

(3)

Deon has to buy all the butter she needs to make 60 biscuits.  
She buys the butter in 250 g packs.

(b) How many packs of butter does Deon need to buy?

.....

(2)

**(Total for question = 5 marks)**

**Q6. NON-CALCULATOR**

Shahid is going to use these instructions to make a fizzy drink.

Mix 5 parts of orange juice  
with 2 parts of lemonade

Shahid thinks that he has 300 m/ of orange juice and 200 m/ of lemonade.

(a) If Shahid is correct, what is the greatest amount of fizzy drink he can make?

..... m/  
(3)

Shahid has 300 m/ of orange juice but he only has 160 m/ of lemonade.

(b) Does this affect the greatest amount of fizzy drink he can make? Give a reason for your answer.

.....  
.....  
.....

(1)  
(Total for question = 4 marks)

**Q7. NON-CALCULATOR**

It would take 120 minutes to fill a swimming pool using water from 5 taps.

(a) How many minutes will it take to fill the pool if only 3 of the taps are used?

..... minutes  
(2)

(b) State one assumption you made in working out your answer to part (a).

.....  
.....

(1)

(Total for question = 3 marks)

**Q8. NON-CALCULATOR**

It takes 12 men 5 days to complete a job.

(a) Work out how many days it would take 3 men to complete the same job.

.....

(2)

(b) (i) State one assumption you made in working out your answer.

.....

(1)

(ii) How will your answer be affected if your assumption is **not** correct?

.....

.....

(1)

(Total for question = 4 marks)

**Q9. NON-CALCULATOR**

A factory makes 450 pies every day. The pies are chicken pies or steak pies. Each day Milo takes a sample of 15 pies to check.

The proportion of the pies in his sample that are chicken is the same as the proportion of the pies made that day that are chicken.

On Monday Milo calculated that he needed exactly 4 chicken pies in his sample.

(a) Work out the total number of chicken pies that were made on Monday.

.....

(2)

On Tuesday, the number of steak pies Milo needs in his sample is 6 correct to the nearest whole number. Milo takes at random a pie from the 450 pies made on Tuesday.

(b) Work out the lower bound of the probability that the pie is a steak pie.

.....  
(2)  
(Total for question = 4 marks)

**Q10. NON-CALCULATOR**

A company orders a number of bottles from a factory. The 8 machines in the factory could make all the bottles in 5 days. All the machines work at the same rate.

For 2 days, only 4 machines are used to make the bottles. From the 3rd day, all 8 machines are used to make the bottles. Work out the total number of days taken to make all the bottles.

..... days  
(Total for question = 3 marks)