

GCSE Maths - Foundation grade C

Five questions a day

Set 2

No calculators!

Instructions

Complete one set of questions each day.

Write your answers in the boxes and remember to show your working.

Calculators are NOT allowed!

*Once the answers have been
marked, record your progress on
page 8*

Day 1 Percentages

1. Out of 800 students, 300 play computer games more than three times a week.

What percentage of the students plays computer games more than three times a week?

2. Out of a class of 28 pupils, 75% passed their maths exam.

How many pupils passed the exam?

3. A school has 1200 students. 25% are in year 11.

How many students are in Year 11?

4. Out of 75 people who take a driving test, 45 pass.

What percentage of people pass?

5. James has £600 in a savings account at the bank. He withdraws £168

a) What percentage has he withdrawn?

b) How much does he have left in his account?

Day 2 Estimation

1. Estimate the total of $\pounds 14.59 + \pounds 4.15 + 69\text{p}$

2. A student pays $\pounds 34.75$ per term for her bus pass.

- a) Estimate how much this will cost for 3 terms?
- b) Calculate the actual cost

3. Find an approximate value for:

$$\sqrt{(32 \times 26)}$$

4. Find an approximate value for:

$$\frac{110 \times 94}{88}$$

5. The cost of printing raffle tickets is $\pounds 4.85$ for each 100 tickets plus a fixed cost of $\pounds 23.50$

Estimate the cost of printing 500 tickets.

Day 3 Ratios

<p>1. Simplify these ratios:</p> <p>a) 20 : 30</p> <p>b) 7000 : 500</p>	<p>c) 12 : 54</p> <p>d) 30 : 45 : 75</p>
<p>2. The recipe for a children’s drink is: mix 75ml of strawberry syrup with 100ml of apple juice and 150ml of mango juice.</p> <p>Write this ratio in its simplest form.</p>	
<p>3. The recipe for a children’s drink is: mix 75ml of strawberry syrup with 100ml of apple juice and 150ml of mango juice.</p> <p>How much apple juice and mango juice would be needed with 120ml of strawberry syrup?</p>	
<p>4. The instructions on a bottle of blackcurrant squash state: ‘Mix one part squash with four parts water.’</p> <p>How much squash is needed to make up 3 litres of blackcurrant drink?</p>	
<p>5. Muesli is made up from 600g cereal, 250g fruit and 150g nuts.</p> <p>a) How much muesli have you made?</p> <p>b) Calculate how much of each ingredient is needed to make 800g of muesli?</p>	

Day 4 Substitution**Substitute $a = 2$, $b = 4$, $c = 6$ into the following:**

1. $6c - 2a + 4b$

2. $a^2 + a + 4$

3. $3a - 4b^2$

4. $c^2 + 3c - 4$

5. $a^2 + 4 - 4a$

Day 5 Mean, median and mode

1. Calculate the mean, median & mode of this data:

6 3 1 4 6 9 6

2. Calculate the mean, median & mode:

£21 £26 £19 £18 £21

3. Calculate the mean, median & mode:

7.3 5.7 9.5 5.8 9.5

4. What is the range of each of the above lists of numbers?

5. The attendance at five Leicester City Football Club's home games is

2585 2324 3017 2218 1916

Calculate the mean attendance at these games.

Progress

Topic	Score	Traffic light	Comment
Percentages			
Estimation			
Ratios			
Substitution			
Mean, median and mode			

Solutions

Day 1

1. 37.5%
2. 21
3. 300
4. 60%
5. a. 28%
b. £432

Day 2

1. £20
2. a. Between £90 and £105
b. £104.25
3. 30
4. 90
5. £47.75

Day 3

1. a. 2 : 3
b. 14 : 1
c. 2 : 9
d. 2 : 3 : 5
2. 3 : 4 : 6
3. 160ml and 240ml
4. 600ml
5. a. 1kg
b. 480g cereal, 200g fruit, 120g nuts

Day 4

1. 48
2. 10
3. -58
4. 14
5. 0

Day 5

1. Mean 5, median 6, mode 6
2. Mean £21, median £21, mode £21
3. Mean 7.56, median 7.3, mode 9.5
4. 8, 8, 3.8
5. 2412