GCSE Mathematics Practice Tests: Set 1A

Paper 2F (Calculator) Time: 45 minutes

You should have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser, calculator.

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided - there may be more space than you need.
- Calculators may be used.
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- You must show all your working out.

Information

- The total mark for this paper is 40
- The marks for each question are shown in brackets
 use this as a guide as to how much time to spend on each question.

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.



Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1. Write down the value of the 9 in 213.95

.....

(Total 1 mark)

2. Work out $5.9 + 3.17^2$

.....

(Total 1 mark)

3. A petrol tank holds 48 litres of petrol when it is full.



The scale shows information about how much petrol there is in the petrol tank.

Work out the number of litres of petrol in the petrol tank.

..... litres

(Total 2 marks)

4. Asif was asked to solve the equation 8x + 1 = 5

Here is his working.

$$8x + 1 = 5$$
$$8x = 4$$
$$x = \frac{8}{4}$$
$$x = 2$$

Asif's answer is wrong. What mistake did he make?

(Total 1 mark)

5. On 1st June, Brian has £312 in his bank account.

On 5th June he puts £120 into his bank account.

On 10th June he puts £25 into his bank account.

This is how much Brian spends from his bank account from 1st June to 15th June.

Supermarket £42.40 Mobile phone bill £21.05 Grocery shop £24.30 Electricity bill £64.20 Online book purchase £18.32 Council tax £144.50 Clothes £84.20 Supermarket £51.35

On 16th June, Brian wants to know how much money there is in his bank account.

Work out how much money there is in his bank account.

£

(Total 4 marks)

6. Jim says,

"When you subtract a number from 10, the answer will always be less than 10"

(a) Is Jim correct?

You must give a reason with you answer.

Lucy says,

"When you halve a whole number that ends in 4, you always get a number that ends in 2"

(b) Write down an example to show that Lucy is wrong.

.....

(Total 2 marks)

(1)

7. Trina collects eggs from her hens. She labels their eggs small or medium or large.

20% of the eggs she collected in May were small. 24% of the eggs she collected in May were large.

(a) What percentage of the eggs she collected in May were medium?

.....% (2)

(b) Express 24% as a fraction.Give your fraction in its simplest form.

Tina collected 75 eggs in May.

(*c*) Work out 20% of 75.

.....

(2)

(Total 6 marks)

8. Suha walked 7 km from her home.

She then had a rest. Suha then walked home.

Here is Suha's travel graph.



..... hours (1)

(Total 4 marks)

9. A machine makes 36 trophies every hour.

The machine makes trophies for $8\frac{1}{2}$ hours each day, on 5 days of the week.

The trophies are packed into boxes. Each box holds 8 trophies.

How many boxes are needed for all the trophies made each week?

.....

(Total 4 marks)

10. Here is a four-sided spinner. The spinner is biased.



The table shows the probabilities that the spinner will land on 1 or on 3

Number	1	2	3	4
Probability	0.2		0.1	

The probability that the spinner will land on 2 is the same as the probability that the spinner will land on 4 $\,$

(a) Work out the probability that the spinner will land on 4

Shunya is going to spin the spinner 200 times.

(b) Work out an estimate for the number of times the spinner will land on 3

(Total 5 marks)



ABC is a right-angled triangle.

AB = 6 cm. AC = 9 cm.

Work out the length of *BC*. Give your answer correct to 3 significant figures.

.....cm

(Total 3 marks)

12. Ali is planning a party.

He wants to buy some cakes and some sausage rolls.

The cakes are sold in boxes. There are 12 cakes in each box. Each box of cakes costs $\pounds 2.50$.

The sausage rolls are sold in packs. There are 8 sausage rolls in each pack. Each pack of sausage rolls costs $\pounds 1.20$.

Ali wants to buy more than 60 cakes and more than 60 sausage rolls. He wants to buy exactly the same number of cakes as sausage rolls.

What is the least amount of money Ali will have to pay?

£.....

(Total 5 marks)

13. The *n* th term of a sequence is $n^2 + 4$

Alex says

"The n th term of the sequence is always a prime number when n is an odd number."

Alex is wrong.

Give an example to show that Alex is wrong.

(Total 2 marks)

TOTAL FOR PAPER IS 40 MARKS