

Please write clearly in block capitals.

Centre number

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Candidate number

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Surname

Forename(s)

Candidate signature

I declare this is my own work.

GCSE MATHEMATICS

F

Foundation Tier

Paper 3 Calculator

Example-Problem paper based on the November 2024 paper

Time allowed: 1 hour 30 minutes



About this resource

This Example-Problem Paper is designed to help you learn by doing.

Each section starts with a page of worked solutions showing you a step-by-step method how to answer the question (some questions may have alternative methods).

The marks for each question are clearly annotated on the worked solutions, so you can see where every mark is earned and what you need to include to get full credit. For some marks, there are extra details explaining how the marks are earned.

After each worked page, you'll find a page of shadow questions—these are almost identical to the examples but use different numbers or answers. Your task is to follow the method you've just seen and apply it yourself.

Teachers will mark your shadow questions using the same mark scheme as the shadow paper, so you'll know exactly how well you've understood the method.

For Examiner's Use	
Pages	Mark
2–3	
4–5	
6–7	
8–9	
10–11	
12–13	
14–15	
16–17	
18–19	
20–21	
22–23	
24	
TOTAL	

Answer **all** questions in the spaces provided.1 (a) Work out $\frac{1}{4}$ of 780

$$780 \div 4 =$$

[1 mark]

Answer 195

BI

1 (b) Work out the value of 19^2

$$19 \times 19 =$$

[1 mark]

Answer 361

BI

2 Simplify fully $y+y+y$

[1 mark]

Answer 3y

BI

Answer **all** questions in the spaces provided.

1 (a) Work out $\frac{1}{5}$ of 455

[1 mark]

Answer _____

1 (b) Work out the value of 17^2

[1 mark]

Answer _____

2 Simplify fully $a + a + a + a$

[1 mark]

Answer _____

- 3 (a) 3 apples cost 96p

Work out the cost, in pounds (£), of 12 of these apples.

[2 marks]

$$\begin{array}{l}
 \text{M1 } 96 \div 3 = 32 \text{ p per apple or } 12 \div 3 = 4 \\
 32 \times 12 = 384 \text{ p} \qquad \qquad \qquad 4 \times 96 = 384 \text{ p} \\
 384 \div 100 = \text{£}3.84
 \end{array}$$

Answer £ 3.84 AI

- 3 (b) In total, the cost of 40 cartons of apple juice and 20 cartons of orange juice is £21.50

Work out the cost of

4 cartons of apple juice and 2 cartons of orange juice.

[2 marks]

$$\begin{array}{l}
 40 \div 4 = 10 \\
 20 \div 2 = 10
 \end{array}$$

$$\text{M1 } 21.50 \div 10 = 2.15$$

Answer £ 2.15 AI

Turn over for the next question

3 (a) 4 oranges cost 92p

Work out the cost, in pounds (£), of 12 of these oranges.

[2 marks]

Answer £ _____

3 (b) In total, the cost of 30 bananas and 50 apples is £48.50

Work out the cost of

3 bananas and 5 apples.

[2 marks]

Answer £ _____

Turn over for the next question

- 4 (a) Write these numbers in order of size.
Start with the **smallest** number.

2 1.8 -1 0

[2 marks]

Answer -1 , 0 , 1.8 , 2 B2

(B1 for answer begins -1 or ends 2)

- 4 (b) Write these numbers in order of size.
Start with the **smallest** number.

$\frac{1}{2}$ $3\frac{1}{10}$ $\frac{1}{4}$ $\frac{7}{8}$

[2 marks]

Answer $\frac{1}{4}$, $\frac{1}{2}$, $\frac{7}{8}$, $3\frac{1}{10}$ B2

(B1 for answer begins $\frac{1}{4}$ or ends $3\frac{1}{10}$)

- 4 (a) Write these numbers in order of size.
Start with the **smallest** number.

3 1.4 -2 1

[2 marks]

Answer _____ , _____ , _____ , _____

- 4 (b) Write these numbers in order of size.
Start with the **smallest** number.

$\frac{1}{5}$ $2\frac{1}{2}$ $\frac{1}{10}$ $\frac{5}{6}$

[2 marks]

Answer _____ , _____ , _____ , _____

