AQA

Please write clearly in block capitals.

Centre number | | | | | | Candidate number | | | | |

Surname _____

Forename(s) _____

Candidate signature _____

I declare this is my own work.

Functional Skills Level 1 MATHEMATICS

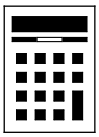
Paper 2 Calculator

Tuesday 25 February 2020 Afternoon Time allowed: 1 hour 30 minutes

Materials

For this paper you must have:

- a calculator
- mathematical instruments.



For Examiner's Use	
Question	Mark
1–8	
9	
10	
11	
12	
TOTAL	

Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.
- State the units of your answer where appropriate.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 60.
- You may ask for more answer paper, graph paper and tracing paper. These must be tagged securely to this answer book.

Advice

In all calculations, show clearly how you work out your answer.

Do not write outside the box

Section A

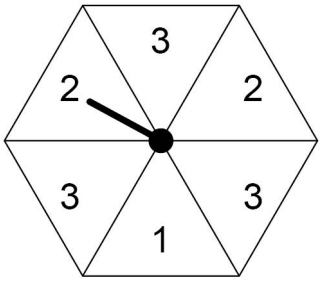
Answer **all** questions in the spaces provided.

1 Which type of angle is the largest?
Circle your answer.

[1 mark]

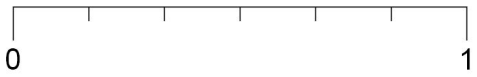
obtuse reflex acute right

2 This fair six-sided spinner is spun once.



Draw an arrow on the scale to show the probability of landing on an odd number.

[1 mark]



3 Write in digits one hundred and twenty four thousand six hundred and fifty

[1 mark]

Answer _____

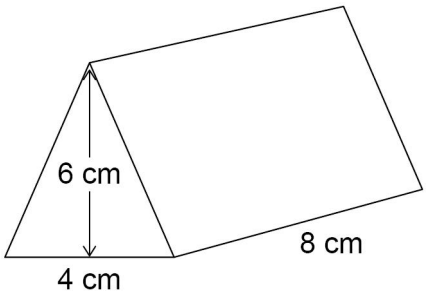
Do not write outside the box

4 A triangular prism has width 4 cm, height 6 cm and length 8 cm

Sketch a net of the prism.

Label the given dimensions on your net.

[2 marks]



Turn over for the next question

Do not write outside the box

5 Round 7.8652 to 2 decimal places.

[1 mark]

Answer _____

6 Convert 1200 grams to kilograms.

[2 marks]

Answer _____ kilograms

Do not write outside the box

7 How many days are there in October?

[1 mark]

Answer _____

8 Increase 250 by 30%

[3 marks]

_____

_____

_____

_____

_____

Answer _____

12

Turn over for Section B

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Section B

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

9 **Dance studio**

Megan owns a dance studio.

9 (a) One day, Megan starts teaching her dance classes at 5.30 pm

Megan

- teaches two classes, each lasting 45 minutes
- teaches one class lasting 30 minutes
- has 10-minute breaks between classes
- needs 25 minutes to tidy up and lock up after the last class.

She plans to meet up with friends at a restaurant after her classes.

It takes 12 minutes to walk from the dance studio to the restaurant.

Does she get to the restaurant by 8.30 pm?
You **must** show your working.

[4 marks]

Do not write outside the box

9 (b) Megan is starting a new dance class.

The floor space available for the dancers is a rectangle measuring 13.8 m by 7.1 m

Each dancer needs 4 m^2 of floor space.

Work out the maximum number of dancers that can be in the dance class.

[4 marks]

Answer _____

Question 9 continues on the next page

Do not write outside the box

9 (c) Megan is shopping for a new speaker for her dance studio.

She sees offers in two shops for the speaker.

G Tone Music Shop Speaker Usual price £129 Special offer $\frac{1}{3}$ off	Oma's Music Store Speaker Usual price £112 Special offer 25% off

Megan wants to pay the lowest price possible.

Which of these shops should she choose?
You **must** show your working.

[5 marks]

Answer _____

13

Do not write outside the box

10 Indoor climbing centre

10 (a) At a climbing centre there must be at least 1 member of staff for every 7 climbers.
There are 6 members of staff for one session.
23 climbers have booked for this session.

Work out how many **more** climbers can book for this session.

[3 marks]

Answer _____

Question 10 continues on the next page

Do not write outside the box

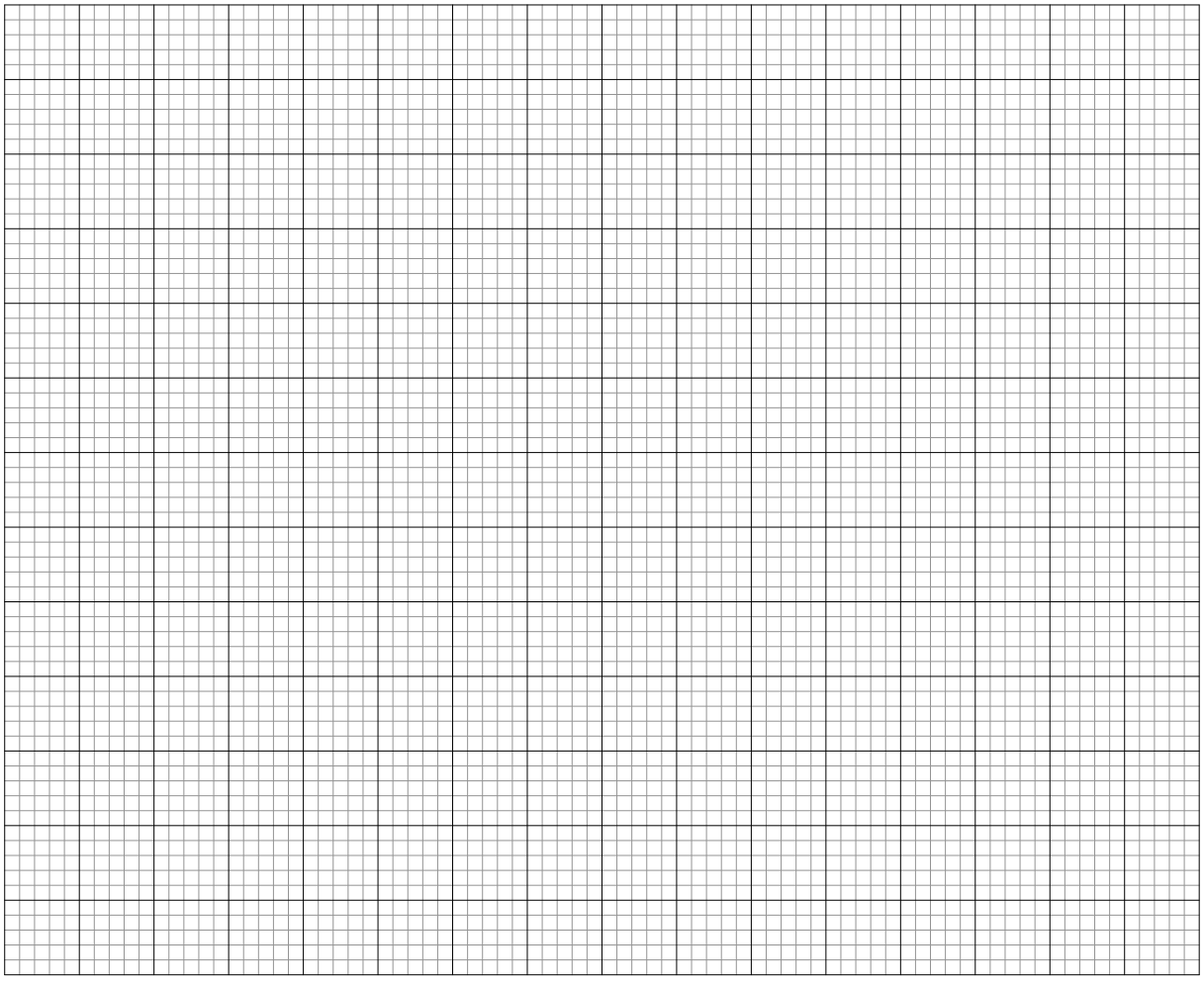
10 (b) The table shows the number of climbers that visited the climbing centre on Monday to Friday one week.

	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Adults	18	15	12	21	18
Children	23	21	22	23	20

Show this information on a suitable diagram.

Use the grid below.

[5 marks]



Do not write outside the box

10 (c) The climbing centre organises a competition for climbers.

Each climber has **six** attempts at climbing a 15-metre wall.

To qualify for the final a climber must have a mean time of **less than** 8 seconds.

Here are Oliver's times, in seconds, for his six attempts.

9.22 8.58 7.79 7.23 8.66 8.14

Does Oliver qualify for the final?
You **must** show your working.

[4 marks]

12

Turn over for the next question

Do not write outside the box

11 Back to school

11 (a) Sandra is shopping for items of school uniform for her children Fred and Beth.
The shopping list below shows the prices of the items Sandra needs to buy.

Fred	**Beth**
2 school jumpers - £17.50 each	2 packs white shirts - £11.99 per pack
3 grey trousers - £10.75 each	2 skirts - £9.50 each
1 sports polo shirt - £14	1 sports polo shirt - £14.50
1 pack white shirts - £12.95 per pack	1 sports skort - £9
School shoes - £45	1 rugby shirt - £22.95
	School shoes - £38

Fred says,

"The total cost of my uniform is lower than Beth's."

Is Fred correct?
You **must** show your working.

[5 marks]

Do not write outside the box

11 (b) Beth earns pocket money by doing jobs at home after school.

Sandra uses this formula to work out how much pocket money Beth receives **each week**.

Weekly pocket money = £2.50 × number of jobs done + £5

Beth wants to buy a pair of trainers for £70

She saves her pocket money for 3 weeks.

She did

- 5 jobs in the first week
- 9 jobs in the second week
- 10 jobs in the third week.

Is this enough to buy the trainers?
You **must** show your working.

[4 marks]

9

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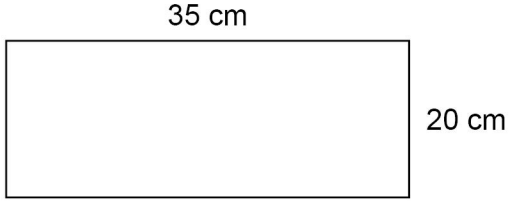
12 Handbags

Jon makes handbags to sell online.

Jon wants to make 50 handbags.

12 (a) For each handbag Jon needs a rectangle of leather measuring 35 cm by 20 cm



He cuts the rectangles from sheets of leather measuring 120 cm by 100 cm

The grid on the opposite page is a scale drawing of a sheet of leather.

Jon says,

"I need 4 sheets of leather to make 50 handbags."

Is he correct?
You may use the grid to help you.
You **must** show your working.

[5 marks]

Do not write outside the box

Scale: 1 cm represents 10 cm

Question 12 continues on the next page

Do not write outside the box

12 (b) Jon fixes a chain to each handbag to make the handle.

Each chain handle is 75 cm long.

He needs enough chain for the 50 handbags.

Jon has 5 rolls of chain.

Each roll of chain is 6 metres long.

How many **more** 6-metre rolls of chain does he need?
You **must** show your working.

[5 marks]

Answer _____

Do not write outside the box

12 (c) The table shows the costs for making the 50 handbags.

	Cost for 50 handbags
Leather	£252.50
Chain	£33.50
Fasteners	£119.50
Other costs	£87.00

Jon expects to sell all 50 bags.

He wants to make at least £3.50 profit on each bag.

Work out the **minimum** price he should sell each bag for.

[4 marks]

Answer £ _____

14

END OF QUESTIONS

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ANSWER IN THE SPACES PROVIDED

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Question number	**Additional page, if required.** **Write the question numbers in the left-hand margin.**

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