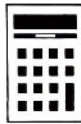**AQA**

Functional Skills Level 1
MATHEMATICS

Paper 2 Calculator

Time allowed: 1 hour 30 minutes

Materials
For this paper you must have:
- a calculator
- mathematical instruments.

For Examiner's Use	
Question	Mark
1–7	
8	
9	
10	
11	
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.
- If your calculator does not have a π button, take the value of π to be 3.142

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

FUNCTIONAL SKILLS ONLINE COURSES

Recommendations

Based on your results from this initial assessment, we estimate you are currently at Level 1.5.
From this diagnostic, we think one of the following courses would be suitable:

Functional Skills Maths Level 2

≡ 35 Topic Count · ⏱ 105 Tests · 🗎 43 Mock Exams

Enrol Now

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English

☐ 13 Questions · ☐ No Time Limit

Start Initial Assessment

Functional Skills Maths Initial Assessment
Maths

☐ 25 Questions · ☐ No Time Limit · ☐ Mixed Calculator

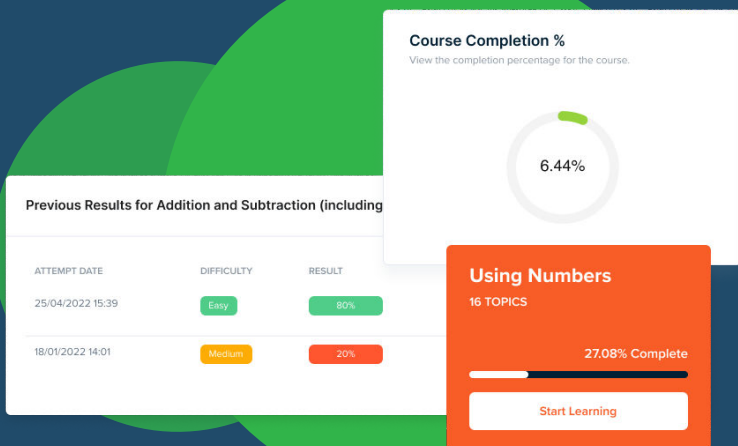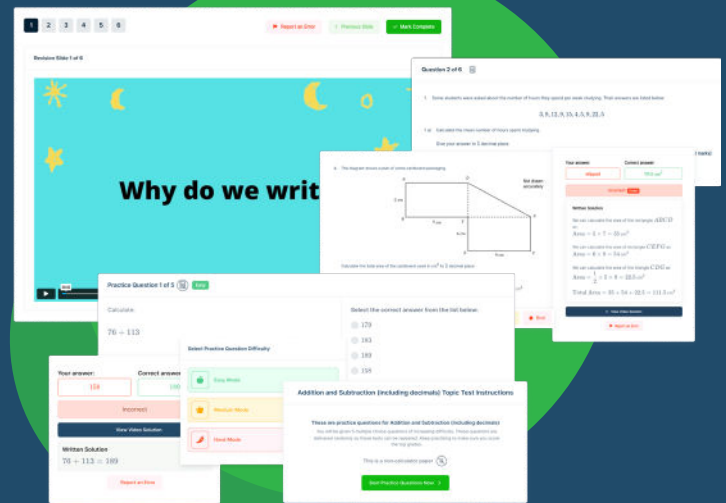**Start Initial Assessment**

✅ Your answers are analysed to determine your Current Level

✅ Suggested courses for you to enrol on based on your calculated level

✅ Always know the level you are currently working at

✅ Determine when you are ready to sit your exam

✅ Explainer videos on every topic

✅ Quick-fire style mutiple choice questions

✅ Test your knowledge with exam-style questions

✅ Written solutions for all questions

Course Completion %
View the completion percentage for the course.

6.44%

Previous Results for Addition and Subtraction (including

ATTEMPT DATE	DIFFICULTY	RESULT
25/04/2022 15:39	Easy	80%
18/01/2022 14:01	Medium	20%

Using Numbers
16 TOPICS

27.08% Complete

Start Learning

✅ See your progress through as you progress through each topic area

✅ Get your average scores for practice questions, topic tests and mock exams

✅ View all practice question, topic test and mock exam attempts over time

✅ View historical attempts to analyse your progress over time

Or visit
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Section A

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

1   Circle   thirty two thousand and eighty nine   written in digits.

[1 mark]

3289   30 289   (32 089)   320 089

2   A fair, ordinary dice is rolled once.

On the line, mark with an 'X' the probability that the dice lands on an even number.

[1 mark]

0   1

3   Write these numbers in order, starting with the smallest.

[2 marks]

−8   3   −5   −1   2   0   −2

_____

_____

Answer   −8, −5, −2, −1, 0, 2, 3

4   Measure the size of angle x.

[1 mark]

Answer _____ 160 _____ °

5   Draw **all** the lines of symmetry on this shape.

[2 marks]
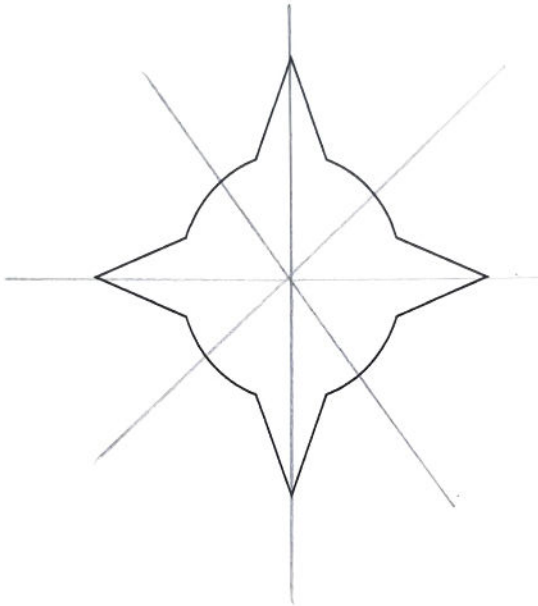
Turn over for the next question

Turn over ▶

6 Work out which is smaller, 15% of 180 or 20% of 120

You **must** show your working.

[3 marks]

15% of 180

10% of 180 = 18

5% of 180 = +9

15% of 180 = 27

20% of 120 :

10% of 120 = 12

20% of 120 = 24

So 20% of 120 is smaller

7 Here are five numbers.

37   58   19   12   58

Work out the range.

[2 marks]

range = biggest - smallest

58 - 12 = 46

Answer   46

12

Section B

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

8   **Charity shop**

Melissa works in a charity shop.

People donate clothing to the shop.

Some of the clothing is sold in the shop and some is sold for recycling.

8 (a)   Melissa keeps a record of the clothing sold in the shop one month.

Item of clothing	Tally	Frequency
Shirt	卌 卌 卌	15
Coat	卌 ‖	7
Jumper	卌 卌 卌 卌 ‖‖	23
Dress	卌 卌 |	11

Melissa says,

"More than a quarter of the items sold were shirts."

Is Melissa correct?

You **must** show your working.

[5 marks]

Total = 15 + 7 + 23 + 11   = 56.

a quarter of 56 =   56 ÷ 4 = 14

There are 15 shirts so yes melissa is
correct as a quarter is 14

Question 8 continues on the next page

Turn over ▶

8 (b)   When Melissa sells clothing for recycling, she receives

a basic amount of £1.20 per 500 g of clothing

10% extra if she sells a batch with more than 100 kg of clothing.

Melissa sells a batch with 143.5 kg of clothing for recycling.

How much does she receive?

[5 marks]

$$143.5 kg \times 2 = 287$$
$$287 \times 1.2 = £344.40$$

$$10\% \text{ of } £344.40 = £34.44$$

$$£344.40 + £34.44$$

$$= £378.84$$

Answer £   378.84

8 (c) Melissa sells bottles of shampoo in the charity shop.

Melissa fills the bottles from a container that holds 12 litres.

How many bottles can Melissa fill from the container?

[4 marks]

1 litre = 1000 ml
12 litres = 12000 ml

12000 ÷ 400 = 30

Answer _____ 30 _____

14

Turn over for the next question

Turn over ▶

9   **Bakery**

Brandon works in a bakery.

9 (a)   Brandon uses scone mix to make scones.

He needs 360 g of scone mix to make 8 scones.

Brandon

wants to make 40 scones

has 200 g of scone mix.

How much **more** scone mix does he need?

[3 marks]
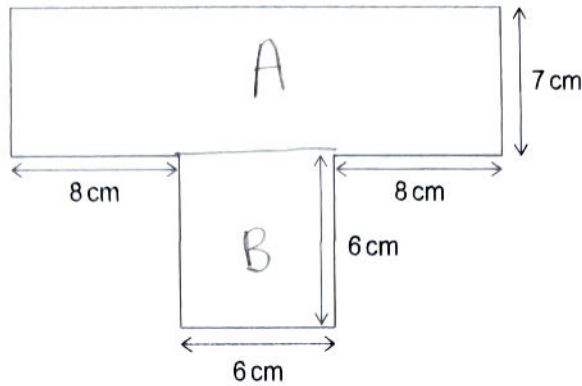
to make 40 scones ...

$$40 \div 8 = 5$$

needs $5 \times 360g = 1800g$

he has 200g, so needs $1800 - 200g = 1600g$

Answer _____1600_____ g

9 (b)   Brandon is making a birthday cake in a T shape.

Here is a plan view of the cake.

A

7 cm

Not drawn
accurately

8 cm   8 cm

B   6 cm

6 cm

Brandon has enough icing for an area of 200 cm^2

Does he have enough icing for the top of the cake?

You **must** show your working.

[4 marks]

Split into area A and B:

A :   7 x (8 + 6 + 8) = 7 x 22

= 154

B :   6 x 6 = 36

Total area = A + B

= 154 + 36 = 190

Yes Brandon has enough icing

Question 9 continues on the next page

Turn over ▶
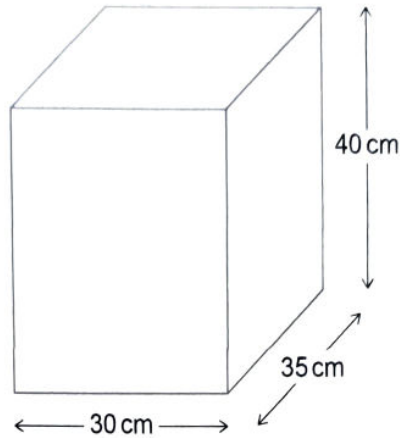
IB/H/Nov21/8361/2

9 (c) Brandon wants to buy a box large enough to hold 16 kg of flour.

He uses this formula.

$$\text{Volume of container (cm}^3) = \text{Weight of flour (kg)} \times 2400$$

He sees this cuboid box for sale.

Not drawn accurately

40 cm

35 cm

30 cm

Can this box hold 16 kg of flour?

You **must** show your working.

[4 marks]

volume of the box = 30 x 35 x 40

= 42000

volume of container = weight of flour x 2400

42000 = ~~16~~ weight x 2400

weight = 42000 ÷ 2400

weight = ~~38/4~~ 17·5 kg

Yes, it can hold 16 kg as it can hold up to 17·5 kg

11

10   **Working from home**

Spencer works from home for a call centre.

10 (a)   Spencer works

        3 days a week

        from 7.30 am until 12 noon each day.

He is paid £151.47 per week.

Is this **more than** £11 per hour?

You **must** show your working.

[4 marks]

7:30am → 12noon = 4 hours 30 mins

                                 = 4.5 hours

per day - 4.5 hours

per week - 3 x 4.5 = 13.5 hours

per hour - £151.47 ÷ 13.5 = £11.22

Yes, he is paid £11.22 which is more
than £11 per hour

10 (b) Spencer can claim an amount for each page he prints for work.

One month,

he claimed £2.76

he printed 138 pages.

The next month, he printed 97 pages.

At the same rate, how much can Spencer claim?

[3 marks]

£2.76 ÷ 138 = 0.02

0.02 × 97 = £1.94

Answer £ ___1.94___

10 (c) Spencer makes phone calls for work.

He has a target that on average his calls should last **less than** 5 minutes.

Here are the times that his calls lasted one day.

Time spent on phone calls in minutes

7	3	2	11	7	5
6	5	9	1	6	7

Did Spencer hit his target that day?

You **must** show your working.

[3 marks]

mean = 7 + 3 + 2 + 11 + 7 + 5 + 6 + 5 + 9 + 1 + 6 + 7

= 69

69 ÷ 12 = 5.75

No he did not hit his target

Turn over for the next question

10

Turn over ▶

11   **School leavers**

Students leave a school at the end of Year 11

11 (a)   The pie chart shows what students did when they left the school last year.

Apprenticeship

20°

College   160°   180°   School with a 6th form
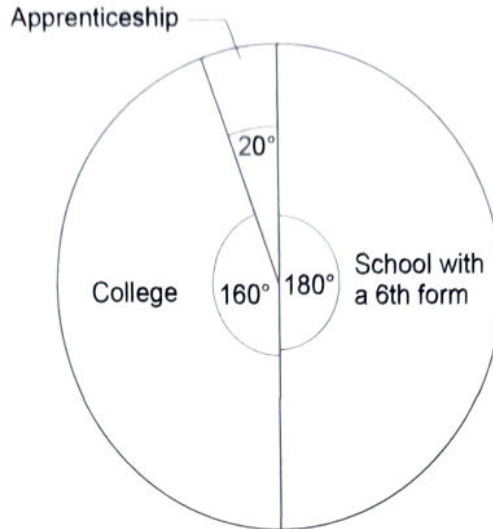
90 students went to a school with a 6th form.

How many **more** students went to college than started an apprenticeship?

[4 marks]

$$90 \div 180° = 0.5$$

college:

$$160 \times 0.5 = 80$$

apprenticeship:

$$20 \times 0.5 = 10$$

$$80 - 10 = 70$$

Answer   70

11 (b)   On the last day, the students will

have a 40-minute lunch

then a 15-minute registration

then a 35-minute assembly.

The students will leave school at 1.50 pm

What is the latest time lunch should start?

[3 marks]

1.50 - 35 minutes = 1.15pm

1.15pm - 15 minutes = 1.00pm

1.00pm - 40 minutes = 12.20pm

Answer _____ 12.20 pm _____

Question 11 continues on the next page

Turn over ▶

11 (c) Javed is going to be an apprentice bricklayer.

He needs to buy **two** jackets.

He sees these offers in two shops.

Shop A	Shop B
Jackets usual price £24	Jackets usual price £21.80
Special Offer $\frac{1}{3}$ off the usual price	Special Offer Buy one, get second half price

He wants to pay the lowest price possible.

Which of these shops should Javed choose?

You **must** show your working.

[6 marks]

Shop A: £24 ÷ 3 = £8 off.
£24 − 8 = £16 × 2 = (£32)
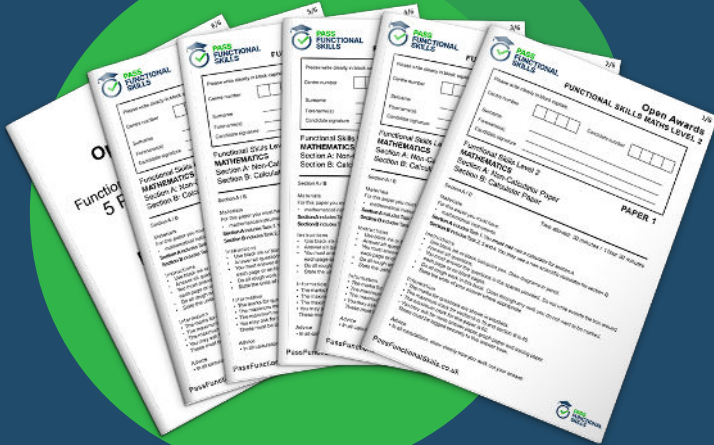
Shop B £21.80
£21.80 ÷ 2 = £10.90
Total = £32.70

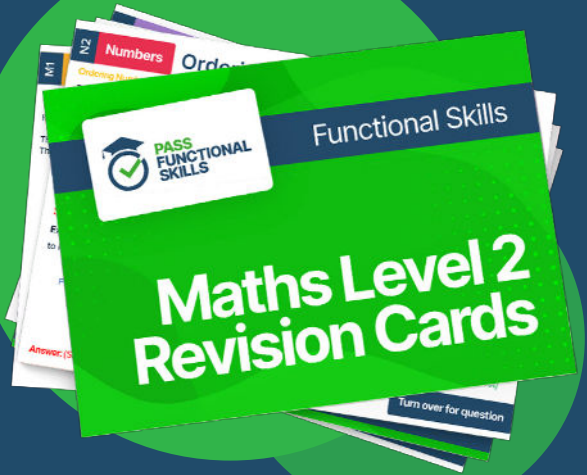Shop A would be cheaper.

END OF QUESTIONS

13

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