AQA

Please write clearly in block capitals.

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

Surname _____

Forename(s) _____

Candidate signature _____

I declare this is my own work.

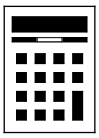
Functional Skills Level 1
MATHEMATICS

Paper 2 Calculator

Monday 13 January 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.

J A N 2 0 8 3 6 1 2 0 1

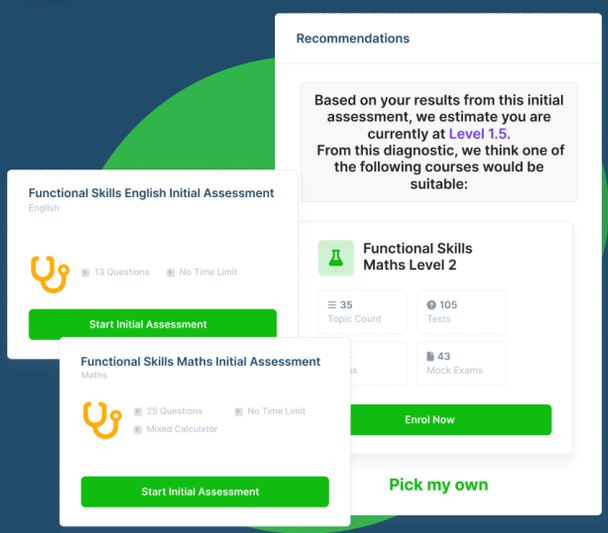
IB/M/Jan20/E8

8361/2

QAN 603/4257/2

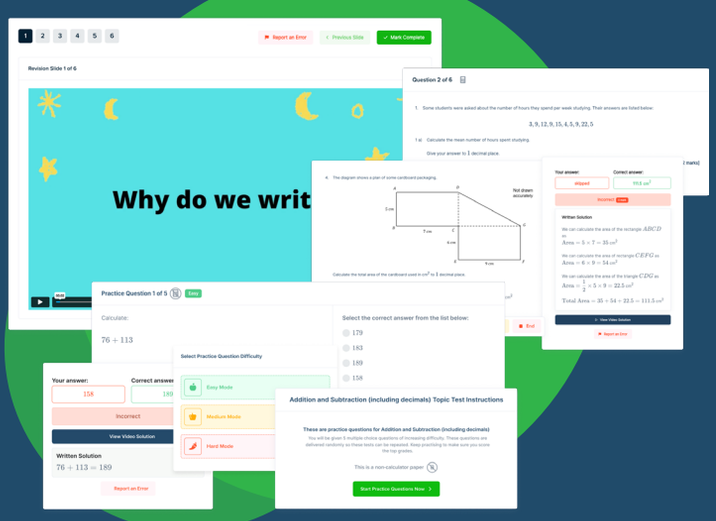
PASS FUNCTIONAL SKILLS

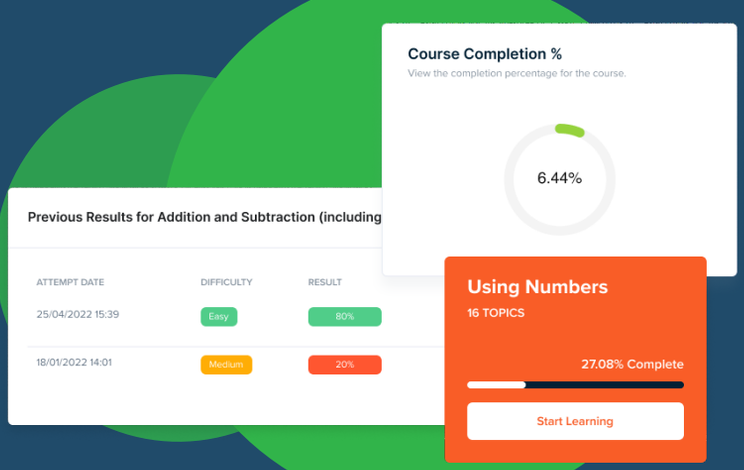
FUNCTIONAL SKILLS ONLINE COURSES



- 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





- 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
passfunctionalskills.co.uk

Do not write outside the box

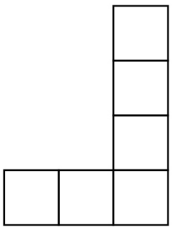
Section A

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

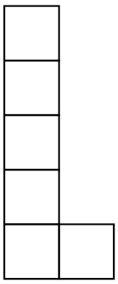
1 Which of the following is a net of a cube?
Circle the correct letter.

[1 mark]

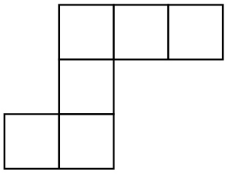
A



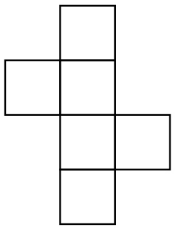
B



C



D



2 Calculate 52^2

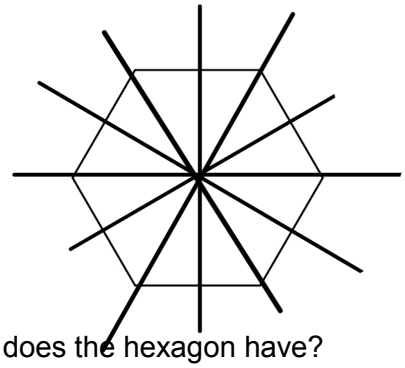
[1 mark]

52 × 52 = 2704

Answer 2704

Do not write outside the box

3 Here is a regular hexagon.



How many lines of symmetry does the hexagon have?
Circle your answer.

[1 mark]

2 3 6 12

4 A fair ordinary six-sided dice is rolled.

Write down the probability that it lands on a number **greater than** 4
Give your answer as a fraction.

5 or 6

[1 mark]

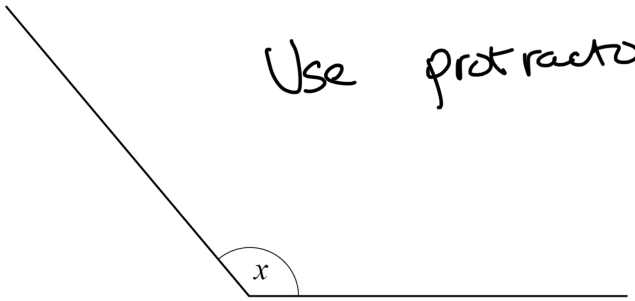
Answer 2/6

Turn over for the next question

Do not write outside the box

5 Measure the size of angle x.

[1 mark]



Answer 130 °

6 Work out the number of minutes in 7 days.

[2 marks]

24 hours x 7 = 168 hours

168 hours x 60 minutes = 10,080

Answer 10,080

Do not write outside the box

7 Write these fractions in order, starting with the smallest.

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

$\frac{42}{60}$ $\frac{45}{60}$ $\frac{40}{60}$

[2 marks]

smallest 2/3

7/10

largest 3/4

8 Here are seven numbers.

4 12 10 13 4 6 14

Work out the mean.

[3 marks]

4 + 12 + 10 + 13 + 4 + 6 + 14 = 63

63 ÷ 7 = 9

Answer 9

12

Do not write outside the box

Section B

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

9 **Hotel**

Vikki and Zach work part-time in a hotel.

9 (a) Vikki works on the reception desk.

Her normal rate of pay is £9.65 per hour.

She is paid double for working on a bank holiday.

One week she works for 30 hours in **total**.

26 of these hours are at her normal rate of pay.

The other hours are on a bank holiday.

Work out her total pay for the week.

[4 marks]

$26 \times 9.65 = £250.90$

$9.65 \times 2 \times (30 - 26) = £77.20$

$250.90 + 77.20 = £328.10$

Answer £ 328.10

Do not write outside the box

9 (b) Zach is a porter in the hotel.

He takes the guests' luggage to their rooms.

He is paid £8.10 per hour.

Here are the hours he worked one week.

Monday	5 pm to 9 pm	4 hours
Thursday	3 pm to 6 pm	3 hours
Saturday	10 am to 2 pm	4 hours

Was he paid more than £90 for the week?
You **must** show your working.

[3 marks]

90 ÷ 8.10 = 11.1 hours

needs to work 11.11 hours to get £90

4 + 3 + 4 = 11 hours worked

NO.

9 (c) Zach gets £23.80 in tips from guests.

He keeps 85% of this money.

He gives the rest to Vikki.

How much money does he give to Vikki?

[3 marks]

100 − 85 = 15% = 0.15

0.15 × 23.80 = 3.57

Answer £ 3.57

Question 9 continues on the next page

Do not write outside the box

9 (d) Zach wants to save £185 to buy a keyboard.

He saves £35 each week.

How many weeks does it take him to save enough money to buy the keyboard?

[3 marks]

185 ÷ 35 = 5.28 weeks

= 5 weeks 2 days

Answer 6 weeks

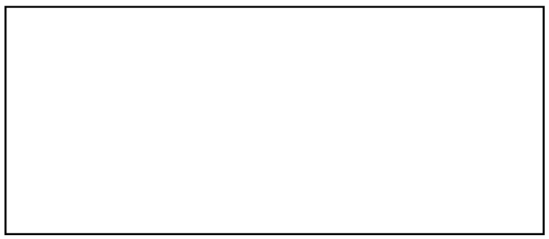
13

Do not write outside the box

10 Gardener

Beth is a gardener.

Here is a sketch of a rectangular garden she is designing.



Not drawn accurately

10 (a) Beth wants to cover one third of the area of the garden with lawn turf.

Lawn turf costs £2.75 per square metre.

It can be cut to fit any area.

Work out the cost of the lawn turf she will need.

[4 marks]

$15 \times 7.2 = 108 m^2$

$108 \times \frac{1}{3} = 36 m^2$

$36 \times £2.75 = £99$

Answer £ 99

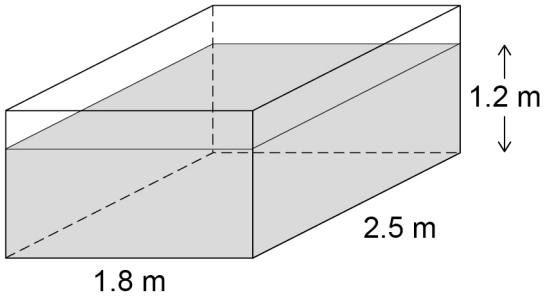
Question 10 continues on the next page

Do not write outside the box

10 (b) There will be a pond for fish in the garden.

The pond will be a cuboid of length 2.5 m and width 1.8 m

The pond will be filled with water to a depth of 1.2 m



1 cubic metre = 1000 litres

Each fish needs 360 litres of water.

Work out the maximum number of fish that can be kept in the pond.

[4 marks]

$1.8 \times 2.5 \times 1.2 = 5.4 m^3 = 5400$ litres

$5400 \div 360 = 15$

Answer 15

Do not write outside the box

10 (c) Beth wants to buy some rose bushes for a flower bed in the garden.

She sees this advert.

Rose bushes

£13.50 each

Buy one, get one half price

How much will Beth pay for 6 rose bushes using this offer?

[4 marks]

2 rose bushes:

$13.50 + \frac{1}{2} \times 13.50 = £20.25$

For 6:

$£20.25 \times 3 = £60.75$

Answer £ 60.75

12

Turn over ►

Do not write outside the box

11 **Concert**

Anya is organising an outdoor concert.

11 (a) Anya is planning where to put refreshment stalls.

There will be

3 rectangular food stalls, each measuring 6 m by 2 m

2 square food stalls, each measuring 4 m by 4 m

1 rectangular drinks stall measuring 6 m by 3 m

There must be at least 2 m of space between stalls.

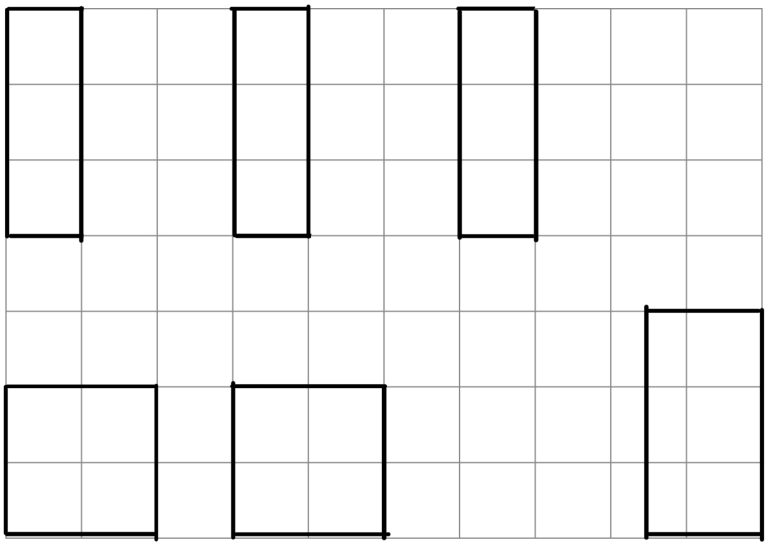
The centimetre grid represents a scale drawing of the area she can use.

On the grid, 1 cm represents 2 m

Draw a possible plan for the stalls on the centimetre grid.

[4 marks]

Scale: 1 cm represents 2 m



Do not write outside the box

11 (b) Tickets to the concert will cost £55

There is an early booking discount of 20%

Work out the total cost of 3 tickets using the early booking discount.

[4 marks]

20% = 0.2

0.2 × 55 = 11 55 − 11 = 44

44 × 3 = 132

Answer £ 132

11 (c) The concert will start at 7.30 pm

Anya wants to know when to open the gates to let people in.

She wants to allow at least

30 minutes to check tickets

and then

40 minutes for people to buy food and drinks.

What is the latest time the gates should open?

[3 marks]

30 + 40 = 70 mins = 1hr 10 mins

7:30pm − 1hr 10 mins = 6:20pm

Answer 6:20pm

11

Do not write outside the box

12 Holiday

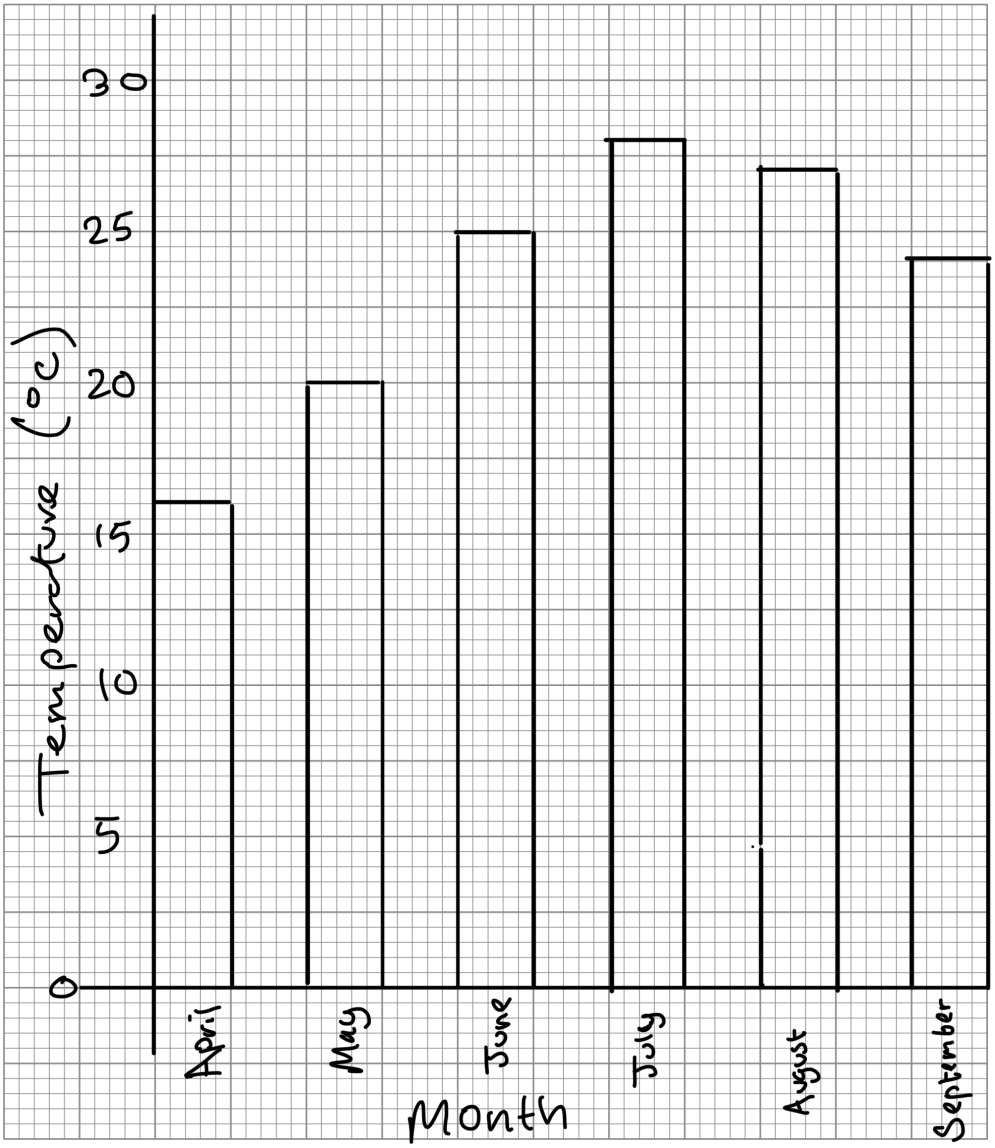
Jack is planning a holiday to Turkey.

12 (a) He finds this information about average temperatures in Turkey.

Month	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**
Temperature (°C)	16	20	25	28	27	24

On the grid below, draw a suitable diagram to show this information.

[4 marks]



Do not write outside the box

12 (b) Jack decides to visit Turkey in July.

The table shows the costs for a holiday in July.

	Price per person for half board		
Date of travel to Turkey	**7 nights**	**10 nights**	**14 nights**
1 to 10 July	£489	£630	£758
11 to 18 July	£515	£642	£760
19 to 31 July	£648	£816	£937
Upgrade to All Inclusive for £21.50 per person per night			

Jack wants to travel on 12 July and stay for 14 nights.

He has £1100 to pay for the holiday.

Can he afford to upgrade to All Inclusive for all 14 nights?
You **must** show your working.

[4 marks]

760 + 21.50 × 14 = £1061

base cost

upgrade

Yes, he needs £1061 but has £1100

Question 12 continues on the next page

Do not write outside the box

12 (c) Jack will exchange some English pounds for Turkish lira.

£1 = 7.38 Turkish lira

Jack says,

"I want 6500 Turkish lira to take on holiday."

Work out the number of pounds Jack will need to exchange for Turkish lira.
Give your answer correct to the nearest pound.

[2 marks]

6500 ÷ 7.38 = £880.76

Answer £ 881

12 (d) The table shows information about flight delays for 60 flights to Turkey.

Flight delays to Turkey	
Delay time	**Number of flights**
No delay	36
Less than 1 hour	13
1 hour to 3 hours	8
More than 3 hours	3

] at least 1

Estimate the probability that Jack's flight will be delayed by **at least** 1 hour.
Use the data in the table.

[2 marks]

8 + 3 = 11 11/60

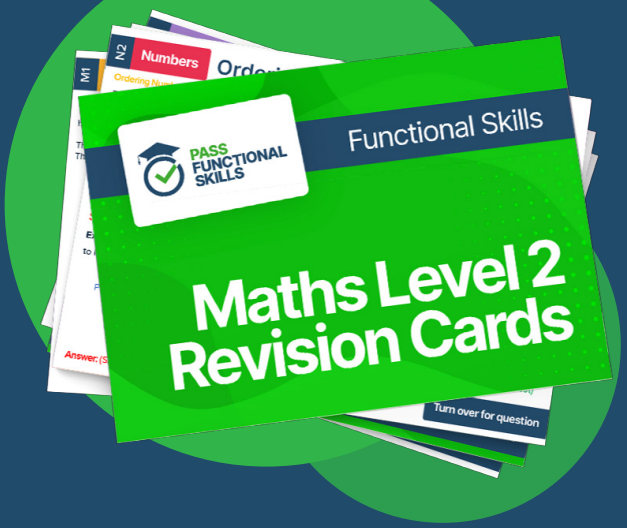
Answer 11/60

12

END OF QUESTIONS

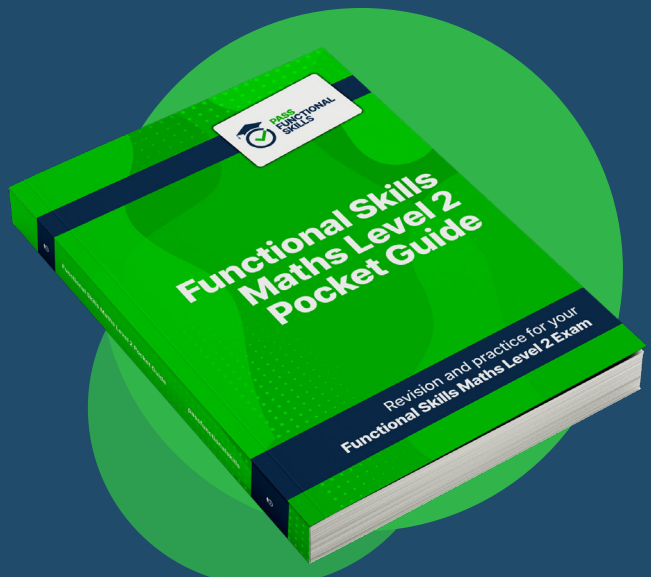
PASS FUNCTIONAL SKILLS

Functional Skills Maths
Level 2 Practice Papers



Functional Skills Maths
Level 2 Revision Cards

Functional Skills English Level 2
Practice Papers & Revision Cards



Functional Skills Maths
Level 2 Pocket Revision Guide

Or visit
passfunctionalskills.co.uk