



Surname _____

Other Names _____

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I declare this is my own work.

Functional Skills Level 1

MATHEMATICS

Paper 2 Calculator

8361/2

Monday 13 January 2020

Afternoon

Time allowed: 1 hour 30 minutes

At the top of the page, write your surname and other names, your centre number, your candidate number and add your signature.

[Turn over]



For this paper you must have:

- a calculator
- mathematical instruments.



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 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 TURN OVER UNTIL TOLD TO DO SO



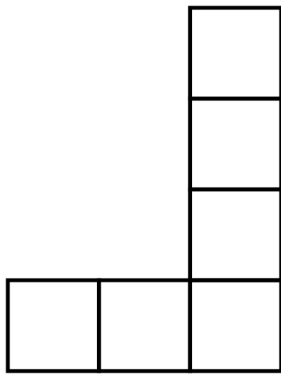
SECTION A

Answer ALL questions in the spaces provided.

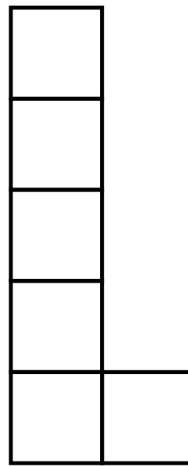
1 Which of the following is a net of a cube?

Circle the correct letter. [1 mark]

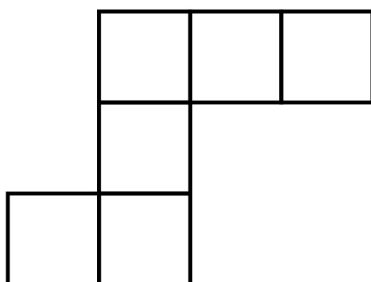
A



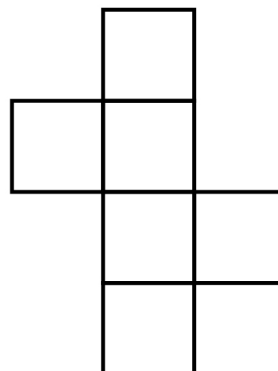
B



C



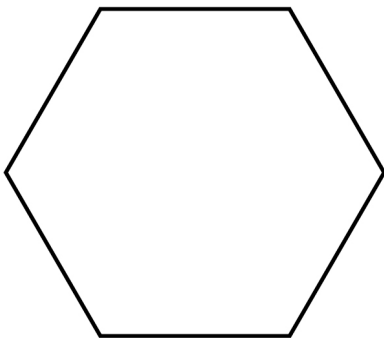
D



2 Calculate 52^2 [1 mark]

Answer

3 Here is a regular hexagon.



How many lines of symmetry does the hexagon have?

Circle your answer. [1 mark]

2

3

6

12

[Turn over]



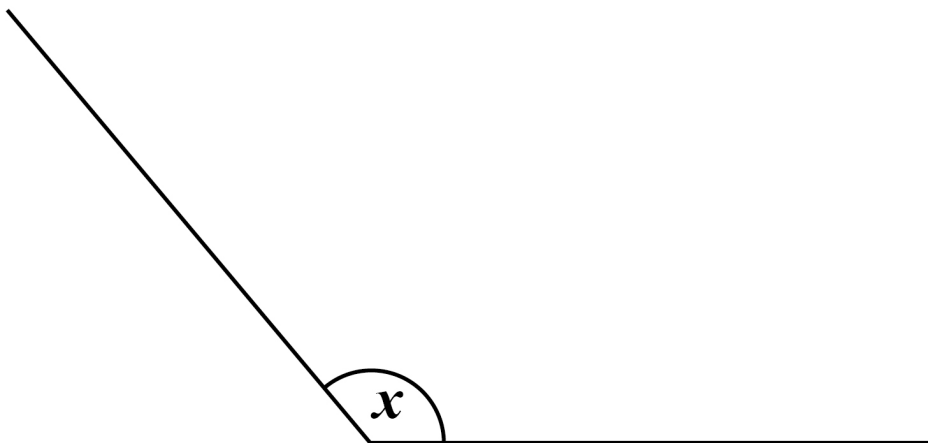
- 4 A fair ordinary six-sided dice is rolled.

Write down the probability that it lands on a number **GREATER THAN 4**

Give your answer as a fraction. [1 mark]

Answer _____

- 5 Measure the size of angle x . [1 mark]



Answer _____°



- 6 Work out the number of minutes in 7 days.
[2 marks]**

Answer _____

[Turn over]



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

$$\frac{7}{10}$$

$$\frac{3}{4}$$

$$\frac{2}{3}$$

[2 marks]

smallest

largest



8 Here are seven numbers.

4 12 10 13 4 6 14

Work out the mean. [3 marks]

Answer

[Turn over]

12



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]



Answer £ _____

[Turn over]



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
Thursday	3 pm to 6 pm
Saturday	10 am to 2 pm

Was he paid more than £90 for the week?

You MUST show your working. [3 marks]



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]**

Answer £ _____

[Turn over]



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]

Answer _____

13



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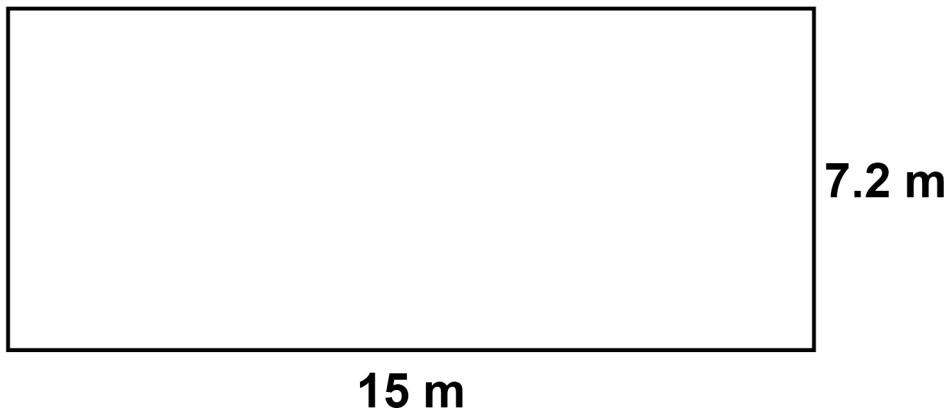


10 GARDENER

Beth is a gardener.

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

The diagram is 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]



Answer £

[Turn over]

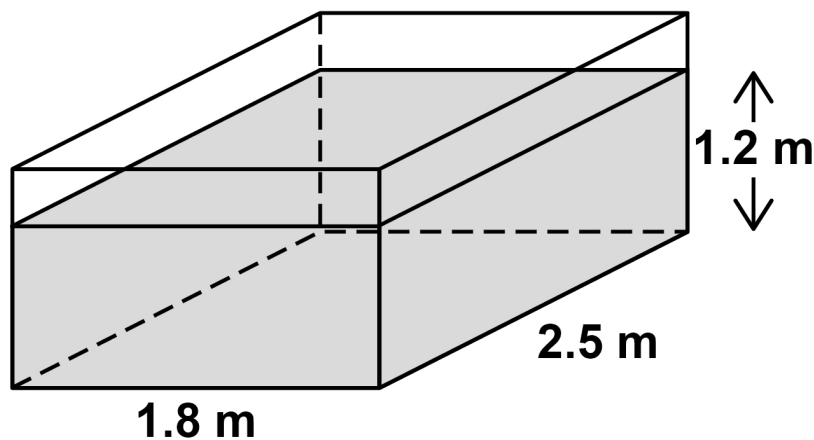


10 (b) There will be a pond for fish in the garden.

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

The diagram is not drawn accurately.



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]



Answer _____

[Turn over]



- 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]

Answer £ _____



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[Turn over]



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.**

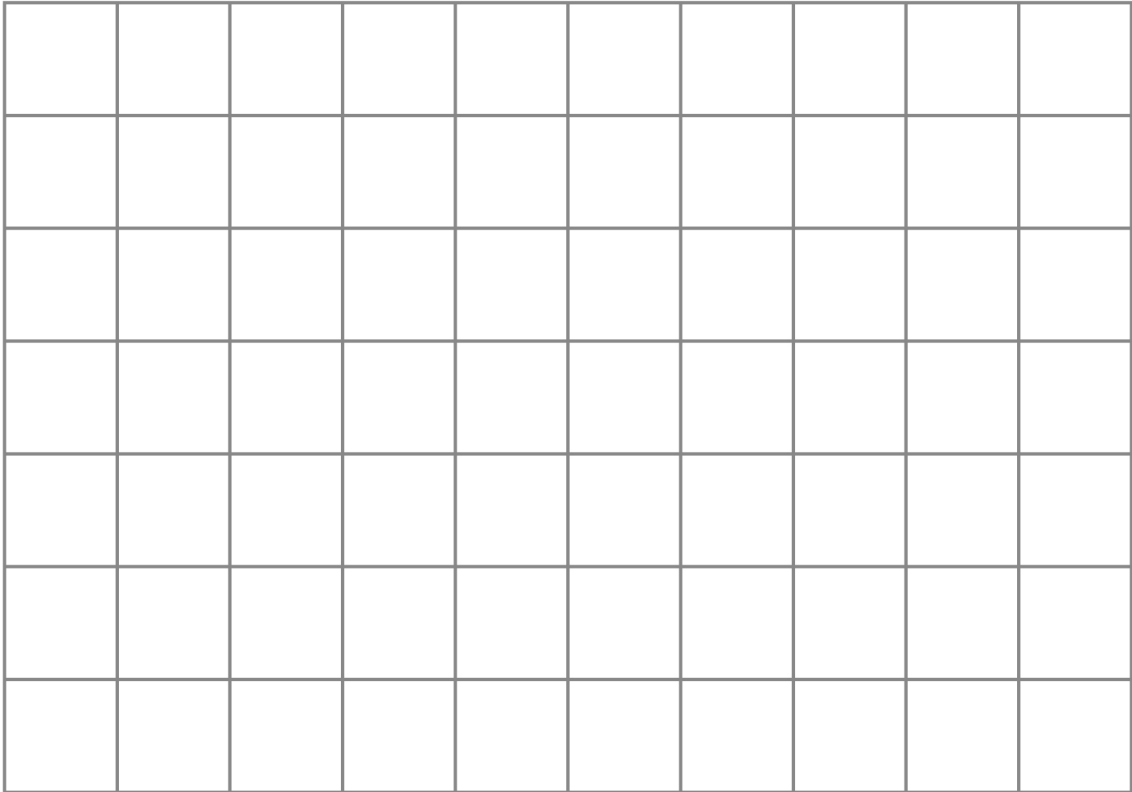
**On the grid, on the opposite page, 1 cm
represents 2 m**

Take each square's side to be 1 cm.

**Draw a possible plan for the stalls on the grid.
[4 marks]**



SCALE: 1 cm represents 2 m



[Turn over]



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]

Answer £ _____



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]

Answer

[Turn over]

11



12 HOLIDAY

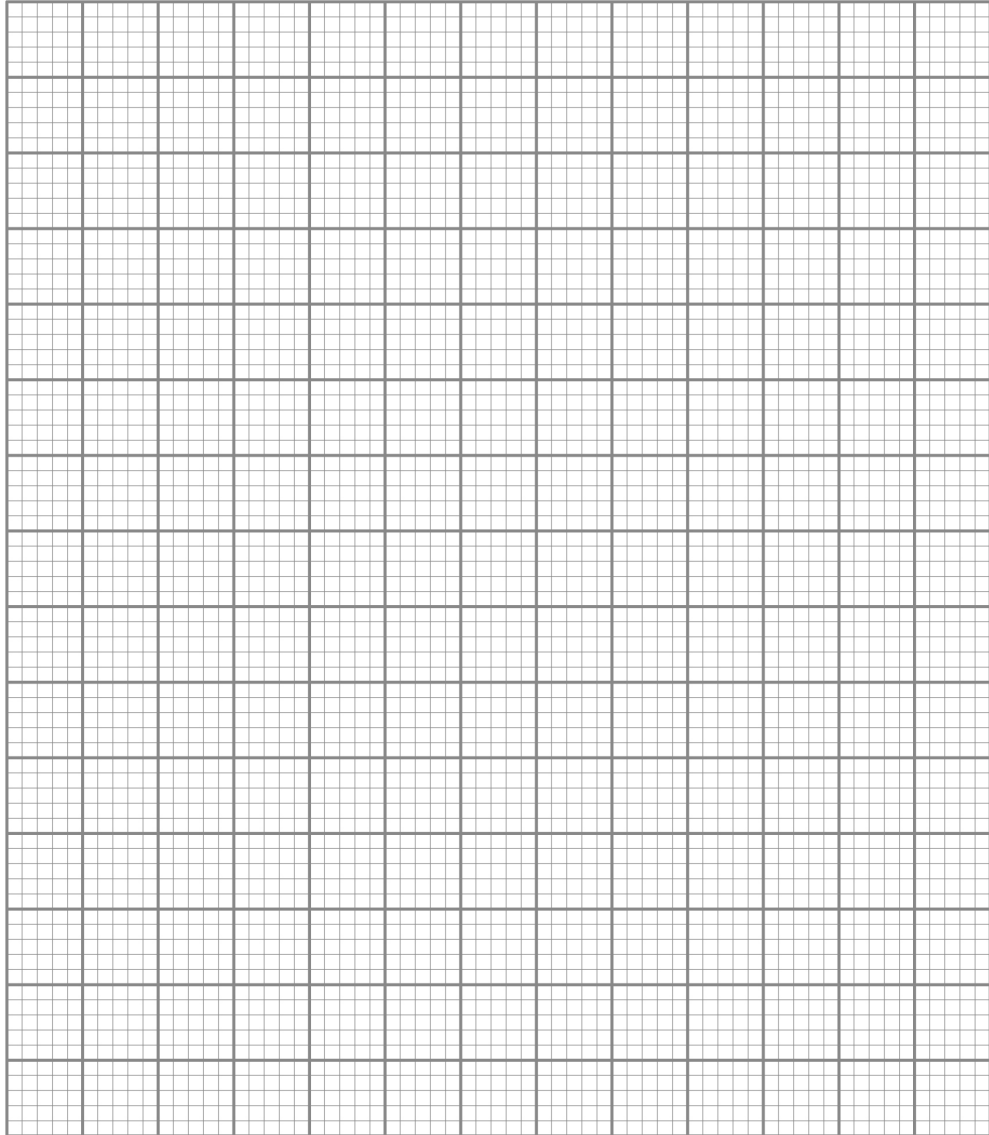
Jack is planning a holiday to Turkey.

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]



[Turn over]



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]



[Turn over]



- 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]

Answer £



- 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

Estimate the probability that Jack's flight will be delayed by AT LEAST 1 hour.

Use the data in the table. [2 marks]

Answer

END OF QUESTIONS

12



Additional page, if required.

Write the question numbers in the left-hand margin.

[illegible]

Additional page, if required.

Write the question numbers in the left-hand margin.

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

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