F

2500/27/02

NATIONAL
QUALIFICATIONS
2012

WEDNESDAY, 2 MAY
9.40 AM – 10.20 AM

MATHEMATICS
STANDARD GRADE
Foundation Level
Paper 2

Fill in these boxes and read what is printed below.

Full name of centre

Town

Forename(s)

Surname

Date of birth

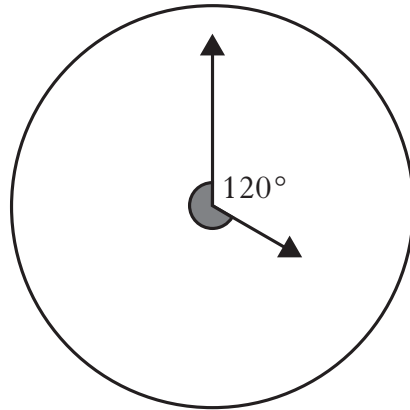| Day	Month	Year	Scottish candidate number	Number of seat

1 **You may use a calculator.**

2 Answer as many questions as you can.

3 Write your working and answers in the spaces provided. Additional space is provided at the end of this question-answer book for use if required. If you use this space, write clearly the number of the question involved.

4 Full credit will be given only where the solution contains appropriate working.

5 Before leaving the examination room you must give this book to the Invigilator. If you do not, you may lose all the marks for this paper.

SQA

1. Lorna can type 4 pages of text in 24 minutes.

At the same rate, how many minutes will it take Lorna to type 7 pages?

WORKING
ANSWER	minutes

3

2. At 4 o'clock the hands of a clock make an angle of 120° as shown below.

120°

Calculate the size of the shaded angle.

WORKING

ANSWER   °

2

3. Here is a calendar for the month of November.

Mon	Tue	Wed	Thu	Fri	Sat	Sun
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

(*a*) What day is November 15th?

ANSWER

1

(*b*) What day is December 11th?

WORKING

ANSWER

2

4. Frank did a sponsored walk to raise money for charity.

He was sponsored for £9 per mile.

He walked 16 miles.

How much money did Frank raise for charity?

WORKING

ANSWER	£

2

5. (*a*) Write the number **6735** in words.

ANSWER

1

(*b*) The numbers listed can be placed into the grid as shown.

Numbers

56
74
217
736
1732

1	7	3	2	
	3		1	
5	6		7	4

Place the numbers listed below into the grid shown.

Numbers

58
63
321
571
5161

You may use the spare grids.

3

6. The population of Glasgow is 580 000.

5% of the population are children below school age.

Calculate how many children are below school age.
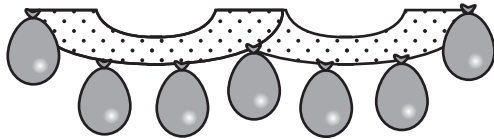
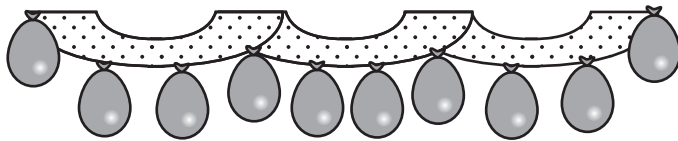| WORKING	
ANSWER	children

2

7. The Party Company uses balloons to make decorations in different sizes.

Some of the decoration sizes are shown below.
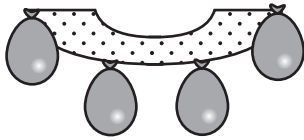
Decoration size 1

Decoration size 2

Decoration size 3

(a) Complete this table.

Decoration size	1	2	3	4	5	6		11
Number of balloons	4	7						

WORKING

(b) Write down a rule for finding the number of balloons if you know the decoration size.

RULE

4

2

8. Some 3D shapes are shown below.

    Cube   Pyramid   Cuboid

This is the net for one of these 3D shapes.

Which 3D shape has this net?

ANSWER	

1

9. The plan below shows some landmarks in the town centre.

The theatre is at position (1, 4).
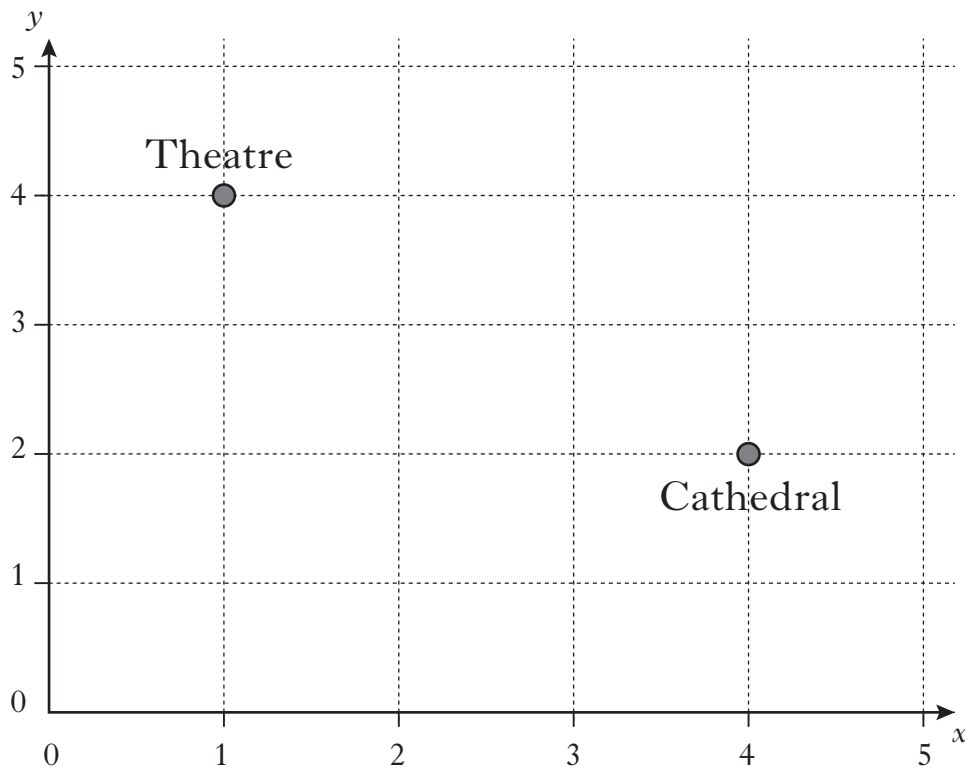
(*a*) Write down the position of the cathedral.

ANSWER	(,)

1

(*b*) The theatre and the cathedral are the **opposite** corners of a rectangle.

Mark two crosses on the grid to show the other two corners of the rectangle.

2

10. The same mobile phone is sold in five different shops for the prices shown below.

£70   £77   £85   £93   £110

Calculate the mean price of the mobile phone.

WORKING

ANSWER   £

4

11. When John started work, his company gave him an employee number.

It was **08 / 367**.

This indicated that he started as an employee in the year **2008** and he was the **367th** person employed by the company.

When Sidra joined the company, she was given an employee number of **10 / 528**.

(*a*)   In which year did Sidra join the company?

ANSWER	

1

(*b*)   Peter was the next person employed by the company.

He started one year after Sidra.

What was Peter's employee number?

WORKING	

ANSWER	

2

12. The top of a table tennis table is in the shape of a rectangle.

The table has a breadth of 150 centimetres.

(*a*) Write the breadth in metres.

WORKING

ANSWER _____ metres

2

(*b*) The table has a length of 2·7 metres.

Calculate the area of the top of the table in square metres.

WORKING

ANSWER _____ square metres

2

13. Aileigh has the following coins in her purse.
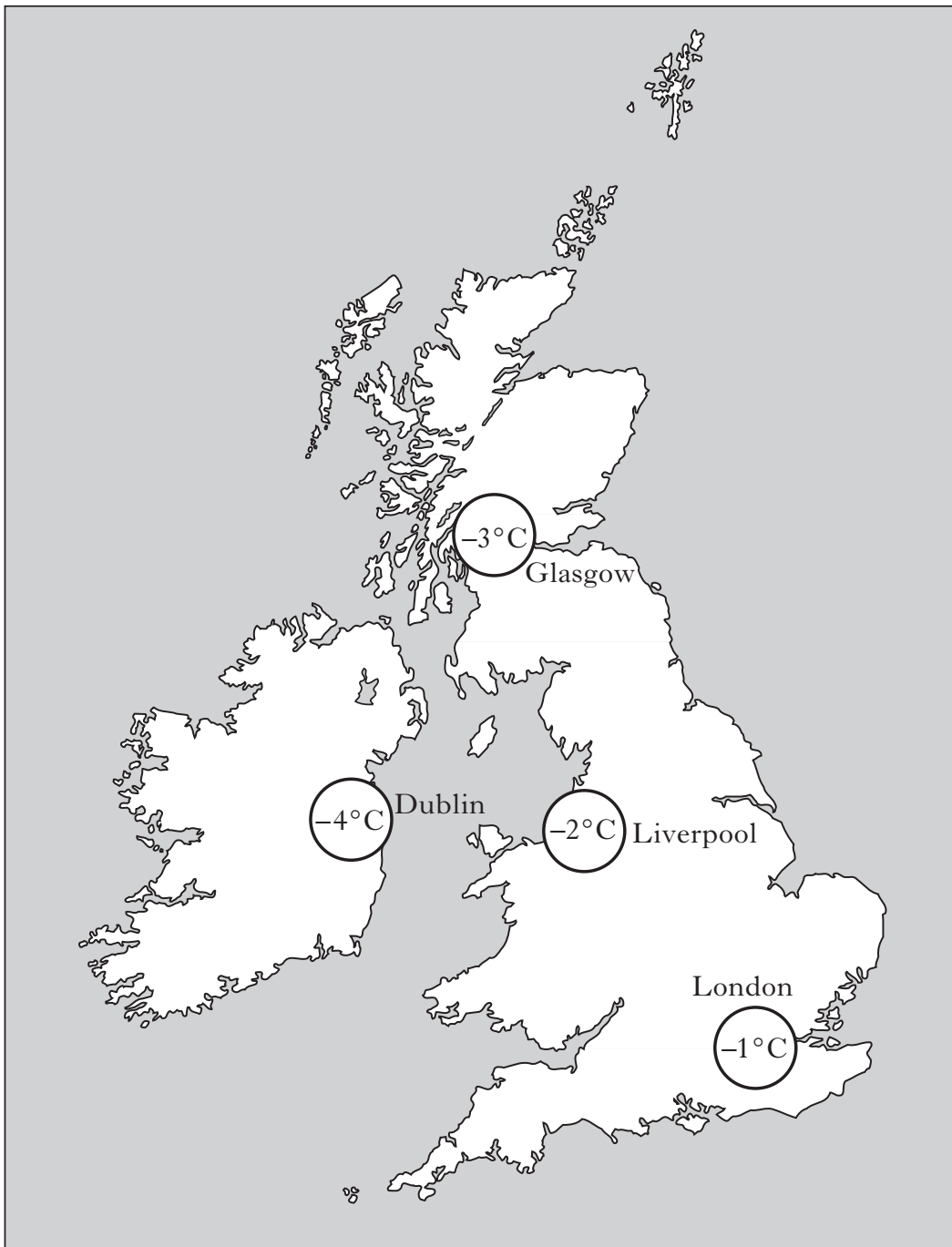
One way of making a total of 30 pence **using the coins in her purse** is shown in the table below.

Complete the table to show 5 other ways that Aileigh can make a total of 30 pence **using the coins in her purse**.

20p	10p	5p	2p	1p
1	0	2	0	0

3

14. One December night, the temperatures in four cities were recorded.

The results are shown on the map below.

Which city was warmest?

ANSWER

1

15. Boxes labelled A, B, C and D are placed on the scales as shown.

The boxes are then placed in order from **lightest** to **heaviest**.

Label the boxes.

☐ ☐ ☐ ☐

Lightest ⟶ **Heaviest**

WORKING

3

16. The formula below is used to change measurements in inches to measurements in centimetres.

Measurement in centimetres = 254 × Measurement in inches ÷ 100

Use the formula to change a measurement of 70 inches to centimetres.

WORKING

ANSWER   centimetres

2

[Turn over for Question 17
on *Page eighteen*

17. (*a*) A bookseller buys 200 books for £4·20 each.

How much did the books cost him altogether?

WORKING

ANSWER £

2

(*b*) He sells 120 of the books for £5·50 each and the remaining books for £3·50 each.

Did he make a profit or a loss?

You must give a reason for your answer.

WORKING

ANSWER (WITH REASON)

4

[*END OF QUESTION PAPER*]