





# **2018 SPRING MATHEMATICS** ENGLAND & WALES

## DO NOT OPEN THIS BOOKLET UNTIL INSTRUCTED. 40 QUESTIONS TIME ALLOWED: 1 HOUR

Please check that the answer sheet you have been given has your correct details (name, date of birth).

Use a pencil. Do **NOT** use a coloured pencil or a pen. Rub out any mistakes completely.

You MUST record your answers on the ANSWER SHEET.

Mark only **ONE** answer for each question.

Your score will be the number of correct answers.

Marks are **NOT** deducted for incorrect answers.

#### There are 35 MULTIPLE-CHOICE QUESTIONS (1-35).

Use the information provided to choose the **BEST** answer from the four possible options.

On your **ANSWER SHEET** fill in the box that matches your answer.

There are 5 FREE-RESPONSE QUESTIONS (36–40).

Write your answer in the boxes provided on the **ANSWER SHEET** and fill in the boxes that match your answer.

You may use a ruler and spare paper.

You are  $\ensuremath{\text{NOT}}$  allowed to use a calculator.

1.	Maree shaded some squares on a grid.   Image: A state of the state of th	3.	Laura has a lunch break from 11:50 am to 1:20 pm.Image: transform of the transform of tra
2.	<image/>	4.	What is the missing number in this number pattern?

#### **QUESTION 5 IS FREE RESPONSE.**

Write your answer in the boxes provided on the ANSWER SHEET and fill in the ovals that match your answer.

5. Here is the start of a pattern.



The number below each triangle gives the total number of dots on the triangle.

The number inside the triangle gives the number of dots on each side of the triangle.

When the total number of dots on a triangle in this pattern is 72, how many dots are there on each of its sides?

## END OF PAPER

## ACKNOWLEDGMENT

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## **TO ANSWER THE QUESTIONS**

#### MULTIPLE CHOICE

Questions 1 to 35

**Example:** 4 + 6 =

[A]	2
[B]	9
[C]	10
[D]	24

The answer is <u>10</u>, so fill in the box  ${}^{\mathbb{C}^{2}}$ , as shown. (A) (B)  $\rightarrow$  (D)

### FREE RESPONSE

Questions 36 to 40

**Example:** 6 + 6 =

- The answer is <u>12</u>, so <u>WRITE</u> your answer in the boxes.
- Write only <u>ONE</u> digit in each box, as shown, and fill in the correct boxes, as shown.





## START

1	۲ <b>Α</b> ۵	٤B٥	۲C	۲D۵
2	c <b>A</b> ⊃	۲B۵	۲C	۲D۵
3	c <b>A</b> ⊃	۲B۵	۲C	۲D۵
4	c <b>A</b> ρ	۲B۵	۲C	۲D٥
5	Г			
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	123 133 143	123 133 143	ε33 ε43	

**د5**ء

۲**6**3

c73

د9ء

**د5**ء

۲<mark>6</mark>3

c73

د8ء

د9ء

۲<mark>6</mark>3

c7)

c81 c81

د9ء

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