

Name _____

Examination Number _____

Room Number _____

WITHINGTON GIRLS' SCHOOL

ENTRANCE EXAMINATION 2016

MATHEMATICS

PAPER 1

TIME: 30 MINUTES

- Try to answer all the questions.
- Write your working and your answer in the space provided after each question.
- If you cannot answer a question, leave it and go on to the next one.
- Use any time you have left to check your answers and go back to any questions you have left out.

CALCULATORS MUST NOT BE USED

PAPER 1 TOTAL	
Marker's Initials	
Checker's Initials	

Section C

Do not
write in
this
margin

<p>1. How many centimetres are in 1.3 metres?</p> <p style="text-align: right;">_____</p>	<p>2. Work out $4.2 \div 0.2$</p> <p style="text-align: right;">_____</p>	<p>1</p> <p>1</p>
<p>3. Which symbol goes in the box $>$, $<$ or $=$?</p> <p style="text-align: center;">0.15×100 <input style="width: 30px; height: 20px; border: 1px solid black;" type="text"/> $182 \div 10$</p>	<p>4. Write the following in size order. Start with the smallest.</p> <p style="text-align: center;">45% 0.35 $\frac{4}{10}$</p> <p style="text-align: right;">_____</p>	<p>1</p> <p>1</p>
<p>5. $2.4 \times 23 = 55.2$. What is 0.24×2.3?</p> <p style="text-align: right;">_____</p>	<p>6. Work out 12.35×3</p> <p style="text-align: right;">_____</p>	<p>1</p> <p>1</p>
<p>7. Alice earns £5.12 per hour. She works 8 hours, how much does she earn?</p> <p style="text-align: right;">£ _____</p>		<p>1</p>
<p>8. What number is half way between 3.5 and 6.9</p> <p style="text-align: right;">_____</p>		<p>1</p>
<p>9. A string measures 13.2 cm. It is cut into three pieces. Two of the pieces measure 5.3 cm and 3.8 cm. What is the length of the third piece?</p> <p style="text-align: right;">_____ cm</p>		<p>1</p>
<p>10. A rectangle has a perimeter of 37 cm. The length is 11.2 cm. What is the width?</p> <p style="text-align: right;">_____ cm</p>		<p>1</p>

Section DDo not
write in
this
marginIn this section, write down the number that **n** stands for.

1. n is the number of minutes between 9:40am and 11:35am	n = _____	1
2. n is the value when 24 is decreased by $\frac{1}{8}$	n = _____	1
3. n is the number where $5 \times n + 8 = 63$	n = _____	1
4. n is the next number in the sequence 2 5 7 12 19 31	n = _____	1
5. n is the number where $\frac{12}{n} = \frac{n}{3}$	n = _____	1
6. n is the number of grams in 2.3 kg	n = _____	1
7. n is the number where $n \times 2 = 3.52$	n = _____	1
8. n is the median of 3 2 7 5 1 4 8	n = _____	1
9. n is the sum of all the factors of 10	n = _____	1
10. n is 20 less than 7	n = _____	1

PLEASE TURN OVER

Section E

Do not write in this margin

1. A bag contains only red, green and blue counters.
 There are 24 counters in total.
 $\frac{1}{6}$ of the counters are red.
 $\frac{1}{4}$ of the rest are green.

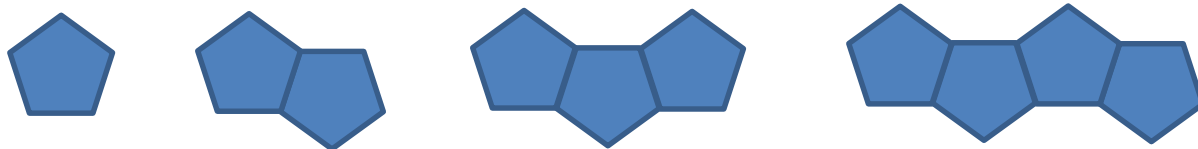
(a) How many counters are green?

1

(b) How many counters are blue?

1

2. Pentagonal tables are joined together to make the following pattern.



(a) Complete the table

Number of pentagons	Perimeter
1	5
2	8
3	
4	

1

(b) What would be the perimeter of 7 pentagonal tables arranged in this way?

1

(c) One arrangement has a perimeter of 53. How many pentagons are in the pattern?

1



3. Here are the top results from the Women's 100m Hurdles at the London 2012 Olympics. The times are given in seconds.

Lolo Jones	12.58
Sally Pearson	12.35
Jessica Zelinka	12.69
Dawn Harper	12.37
Nevin Yanit	12.58

(a) Who won the gold medal?

1

(b) How much faster was Dawn Harper than Nevin Yanit?

_____seconds

1

4. What percentage of each shape is shaded?



_____%

1

5. The nonagon is split into 9 identical triangles.

(a) What is the value of x ?

_____°

1

(a) What is the value of y ?

_____°

1

