

Name _____

Examination Number _____

Room Number _____

WITHINGTON GIRLS' SCHOOL

ENTRANCE EXAMINATION 2015

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 A

Do not
write in
this
margin

<p>1. Work out $641 + 283$</p> <p>_____</p>	<p>2. Work out $245 - 182$</p> <p>_____</p>	<p>1</p> <p>1</p>
<p>3. Work out 56×23</p> <p>_____</p>	<p>4. Work out $312 \div 6$</p> <p>_____</p>	<p>1</p> <p>1</p>
<p>5. Round 418 to the nearest 10</p> <p>_____</p>	<p>6. Work out $42 + 21 + 16 + 44 + 37$</p> <p>_____</p>	<p>1</p> <p>1</p>
<p>7. Write down the next number in this sequence</p> <p style="text-align: center;">8, 20, 31, 41, 50, ,.....</p> <p>_____</p>		<p>1</p>
<p>8. There are 27 classrooms at Withington with 28 chairs in each. How many chairs are there in total?</p> <p>_____</p>		<p>1</p>
<p>9. What number goes in the box?</p> <p style="text-align: center;">$8 \times 11 = \square \times 9 + 34$</p>		<p>1</p>
<p>10. A box of 16 golf balls costs £19.20. How much does one golf ball cost?</p> <p style="text-align: right;">£_____</p>		<p>1</p>
		<p><input style="width: 50px; height: 30px;" type="text"/></p>

Section C

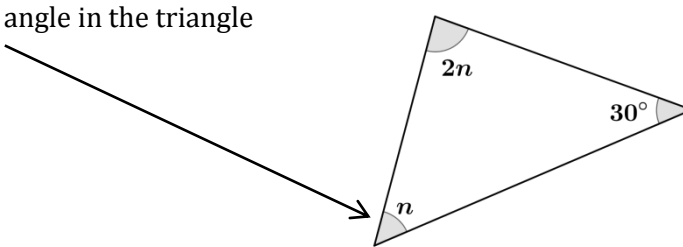
Do not write in this margin

<p>1. Work out $8 \cdot 8 + 5 \cdot 6$</p> <p style="text-align: right;">_____</p>	<p>2. Work out $0 \cdot 8 \times 3 \times 10$</p> <p style="text-align: right;">_____</p>	<p>1</p> <p>1</p>
<p>3. What number goes in the box?</p> <p style="text-align: center;">$0 \cdot 3 \times 100 = 150 \div$ <input style="width: 40px; height: 25px;" type="text"/></p>	<p>4. Circle the larger number</p> <p style="text-align: center;">25% or $0 \cdot 3$</p>	<p>1</p> <p>1</p>
<p>5. Nine cups of tea cost £13·23, Find the cost of one cup of tea.</p> <p style="text-align: right;">_____</p>	<p>6. Subtract $\frac{1}{10}$ from $3 \cdot 05$</p> <p style="text-align: right;">_____</p>	<p>1</p> <p>1</p>
<p>7. What number goes in the box?</p> <p style="text-align: center;">$6 \cdot 2 -$ <input style="width: 40px; height: 25px;" type="text"/> $= 3 \cdot 7$</p>		<p>1</p>
<p>8. Complete the function machine</p> <div style="text-align: center; margin: 10px 0;"> $\begin{array}{ccccccc} & & \times 6 & & \times 100 & & \div 10 \\ & & \longrightarrow & & \longrightarrow & & \longrightarrow \\ \boxed{1 \cdot 2} & & \longrightarrow & \boxed{} & \longrightarrow & \boxed{} & \longrightarrow & \boxed{} \end{array}$ </div>		<p>1</p>
<p>9. What number is half way between $13 \cdot 8$ and $18 \cdot 6$?</p> <p style="text-align: right;">_____</p>		<p>1</p>
<p>10. Put the following in size order (smallest first)</p> <p style="text-align: center; margin: 10px 0;"> 3.25kg 350g 3.08kg 3125g </p> <p style="text-align: center;">_____</p>		<p>1</p>

Section D

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In this section, write down the number that n stands for.

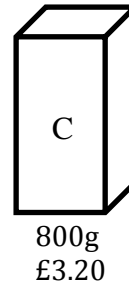
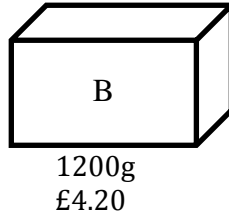
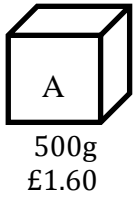
1. n is the mean of 5, 7, 8, 4, 2, 4	$n = \underline{\hspace{2cm}}$	1
2. n is a square number between 60 and 80	$n = \underline{\hspace{2cm}}$	1
3. n is the number $5^2 - 2^2$	$n = \underline{\hspace{2cm}}$	1
4. n is the next number in the sequence 10, 7, 4, 1,	$n = \underline{\hspace{2cm}}$	1
5. n is the value of the unit digit when 876 is multiplied by 153	$n = \underline{\hspace{2cm}}$	1
6. n is the largest even number that uses all the digits 5, 6, 8, 1 once	$n = \underline{\hspace{2cm}}$	1
7. n is the missing number in the division $\begin{array}{r} 65 \\ 7 \overline{) 45n} \end{array}$	$n = \underline{\hspace{2cm}}$	1
8. n is the number of minutes it takes to travel 8 km at a speed of 12 km/h (12 km/h means 12 km every hour)	$n = \underline{\hspace{2cm}}$	1
9. n is the size of this angle in the triangle  Diagram not to scale	$n = \underline{\hspace{2cm}}$	1
10. n is the value when 15 is increased by 40%	$n = \underline{\hspace{2cm}}$	1

PLEASE TURN OVER

Section E

Do not write in this margin

1. Washing powder is sold in all sorts of different sizes.

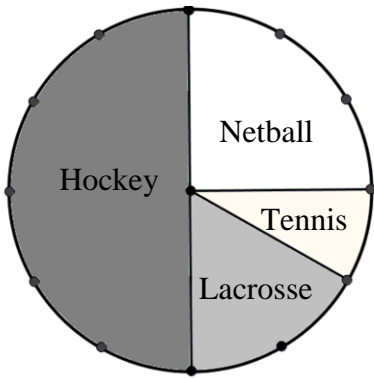


Complete the table by finding the cost of 1 kg for each box.

	Cost of 1 kg
A	
B	
C	

1
1
1

2. The pie chart shows the favourite sport of 60 people.



(a) How many liked netball?

_____ 1

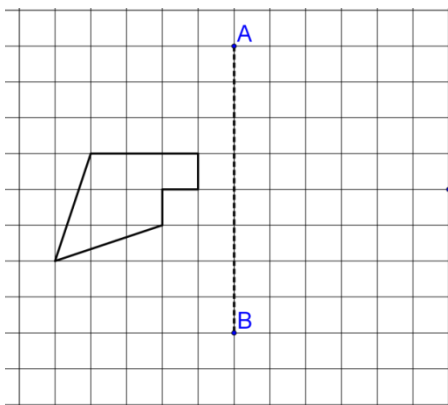
(b) What fraction liked tennis?

_____ 1

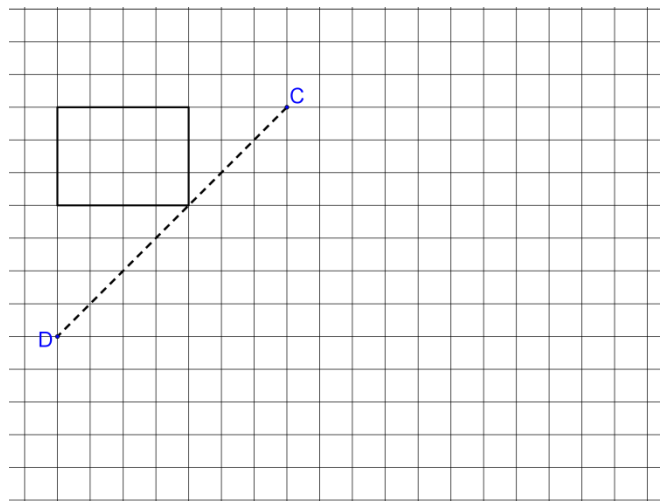
(c) How many liked lacrosse?

_____ 1

3. (a) Reflect the shape in the line AB.



(b) Reflect the shape in the line CD.



1
1

1

4. Here is a list of the ingredients for Spaghetti Carbonara for 4 people.
- 100g pancetta
 - 50g pecorino cheese
 - 50g parmesan
 - 3 large eggs
 - spaghetti
 - 2 garlic cloves, peeled and left whole
 - 50g unsalted butter

William and Amanda are making dinner for 7 people.

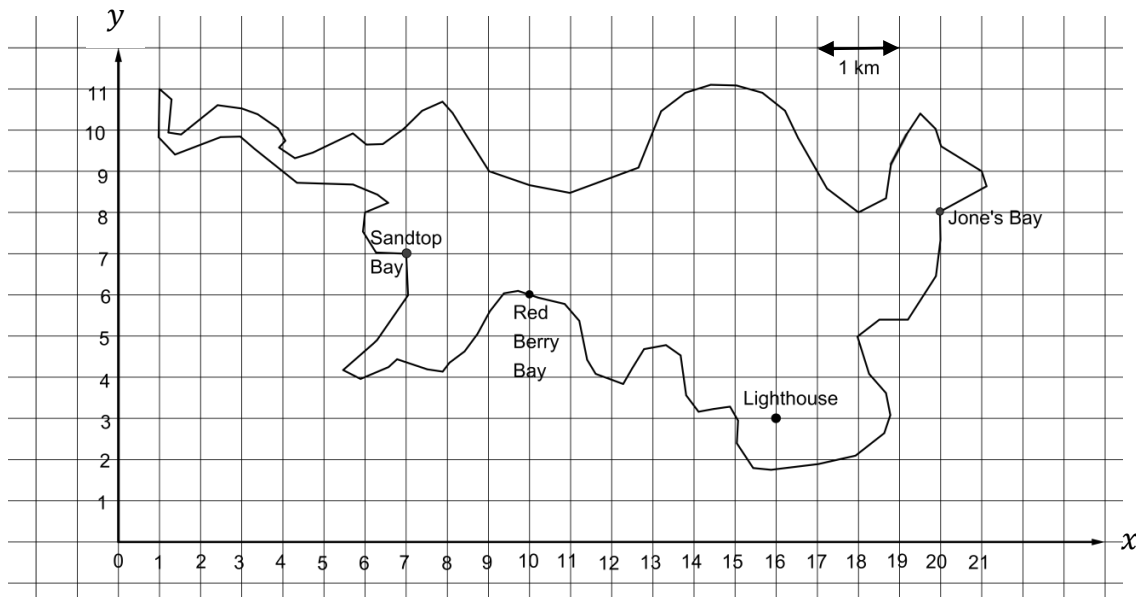
(a) How many grams of pancetta will they need?

_____ g 1

(b) The number of grams of spaghetti on the original recipe is missing. William and Amanda need 490g for 7 people. How many grams of spaghetti were given in the original recipe for 4 people?

_____ g 1

5. Cauldey Island is shown below



(a) Write down the coordinates of

(i) Sandtop Bay (____, ____)

(ii) The Lighthouse (____, ____)

1

1

(b) Needle Point is at (1, 11). Mark and label this point on the map with N.

1

(c) The Monastery is 2km north of the Lighthouse. Using the scale shown, mark and label the Monastery on the map with M.

1

(c) A ship wreck is positioned south of Red Berry Bay and west of the Lighthouse. Mark and label the position of the wreck on the map with W.

1

END OF PAPER 1 - NOW CHECK YOUR WORKING