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**MATHEMATICS**

**0845/02**

Paper 2

**October 2015**

MARK SCHEME

Maximum Mark: 40

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**IMPORTANT NOTICE**

Mark Schemes have been issued on the basis of **one** copy per Assistant examiner and two copies per Team Leader.

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This document consists of **11** printed pages and **1** blank page.



<b>Question number</b>	<b>1</b>		
<b>Part</b>	<b>Mark</b>	<b>Answer</b>	<b>Further Information</b>
(a)	1	28 and 46	
(b)	1	43 and 52	
<b>Total</b>	<b>2</b>		

<b>Question number</b>	<b>2</b>		
<b>Part</b>	<b>Mark</b>	<b>Answer</b>	<b>Further Information</b>
(a)	1	16 and 22	
(b)	1	5, 1 and -1	
<b>Total</b>	<b>2</b>		

<b>Question number</b>	<b>3</b>		
<b>Part</b>	<b>Mark</b>	<b>Answer</b>	<b>Further Information</b>
	1	290 (°)	
<b>Total</b>	<b>1</b>		

<b>Question number</b>	<b>4</b>		
<b>Part</b>	<b>Mark</b>	<b>Answer</b>	<b>Further Information</b>
	1	$\frac{6}{10}$	Accept equivalent fractions such as $\frac{3}{5}$ or $\frac{60}{100}$
<b>Total</b>	<b>1</b>		

Question number	5		
Part	Mark	Answer	Further Information
	2	352                      354 423                      425 432                      435	Award 2 marks for 6 correct numbers with no additional incorrect numbers.  Award 1 mark for 6 correct numbers with any number of additional numbers.  OR  4 or 5 correct numbers with/without additional numbers.
<b>Total</b>	<b>2</b>		

Question number	6		
Part	Mark	Answer	Further Information
	1	<div style="display: flex; flex-direction: column; align-items: flex-start;"> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;"><math>\frac{1}{2}</math> of 56</div> <div style="margin-left: 100px;">22</div> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;"><math>\frac{1}{3}</math> of 78</div> <div style="margin-left: 100px;">23</div> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;"><math>\frac{1}{4}</math> of 92</div> <div style="margin-left: 100px;">24</div> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;"><math>\frac{1}{5}</math> of 125</div> <div style="margin-left: 100px;">25</div> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;"></div> <div style="margin-left: 100px;">26</div> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;"></div> <div style="margin-left: 100px;">27</div> </div> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;"></div> <div style="margin-left: 100px;">28</div> </div> </div>	
<b>Total</b>	<b>1</b>		

Question number	7													
Part	Mark	Answer			Further Information									
	2	<table border="1"> <tr> <td><math>\frac{3}{4}</math></td> <td>✓</td> <td></td> </tr> <tr> <td>0.05</td> <td></td> <td>✓</td> </tr> <tr> <td><math>\frac{34}{100}</math></td> <td></td> <td>✓</td> </tr> </table>	$\frac{3}{4}$	✓		0.05		✓	$\frac{34}{100}$		✓			Award 1 mark for two correct ticks.
$\frac{3}{4}$	✓													
0.05		✓												
$\frac{34}{100}$		✓												
<b>Total</b>	<b>2</b>													

Question number	8				
Part	Mark	Answer			Further Information
	1	60 × 21 in either order			
<b>Total</b>	<b>1</b>				


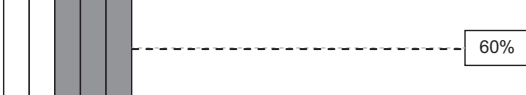
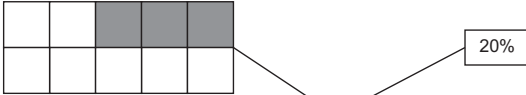

Question number	9				
Part	Mark	Answer			Further Information
	1	42.5 (cm)			
<b>Total</b>	<b>1</b>				

Question number	10		
Part	Mark	Answer	Further Information
(a)	1		
(b)	1	<p>2 squares to the right and 3 squares down</p> <p><b>or</b></p> <p>3 squares down and 2 squares to the right.</p>	
<b>Total</b>	<b>2</b>		

Question number	11		
Part	Mark	Answer	Further Information
	1	44 (bags)	
<b>Total</b>	<b>1</b>		

Question number	12		
Part	Mark	Answer	Further Information
	1	No AND An explanation that numbers in the sequence always end in 1 <u>or</u> 6 <b>or</b> An explanation that numbers in the 5 times table always end in 0 or 5 <b>or</b> An explanation that correctly identifies that the starting number of the sequence needs to be 0 or a multiple of 5 <b>or</b> An explanation that the numbers in the sequence are always 1 more than a multiple of 5	
<b>Total</b>	<b>1</b>		

Question number	13		
Part	Mark	Answer	Further Information
	1	0.8 <input type="text" value="1.1"/> 1.4 <input type="text" value="1.7"/>	
<b>Total</b>	<b>1</b>		

Question number	14		
Part	Mark	Answer	Further Information
	1	   	
<b>Total</b>	<b>1</b>		

Question number	15		
Part	Mark	Answer	Further Information
(a)	1	15 (km)	
(b)	1	Any explanation that shows he had stopped, for example:  Having a rest  Stopped to mend a puncture	
<b>Total</b>	<b>2</b>		

Question number	16		
Part	Mark	Answer	Further Information
	2	$<$ $>$ $=$ $=$	For 1 mark any 3 answers must be correct.
<b>Total</b>	<b>2</b>		

<b>Question number</b>	<b>17</b>		
<b>Part</b>	<b>Mark</b>	<b>Answer</b>	<b>Further Information</b>
	1	(7) 9 10 (11) 15 (17)	
<b>Total</b>	<b>1</b>		

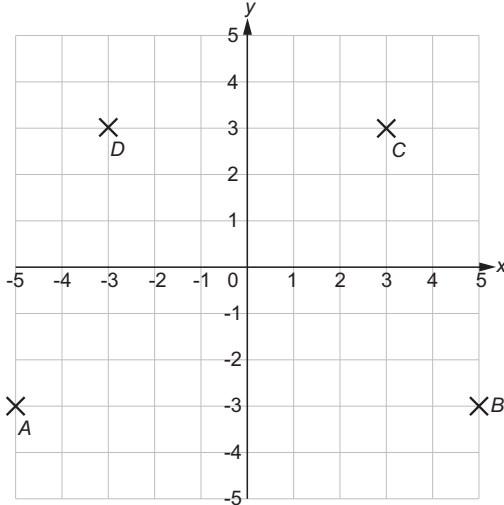
<b>Question number</b>	<b>18</b>		
<b>Part</b>	<b>Mark</b>	<b>Answer</b>	<b>Further Information</b>
	1	$\frac{1}{2} = \frac{3}{6}$ or $\frac{2}{1} = \frac{6}{3}$ <b>or</b> $\frac{1}{3} = \frac{2}{6}$ or $\frac{3}{1} = \frac{6}{2}$ <b>or</b> $\frac{2}{3} = \frac{4}{6}$ or $\frac{3}{2} = \frac{6}{4}$ <b>or</b> $\frac{2}{4} = \frac{3}{6}$ or $\frac{4}{2} = \frac{6}{3}$	
<b>Total</b>	<b>1</b>		

<b>Question number</b>	<b>19</b>		
<b>Part</b>	<b>Mark</b>	<b>Answer</b>	<b>Further Information</b>
	1	(\$) 6.40	
<b>Total</b>	<b>1</b>		



<b>Question number</b>	<b>20</b>		
<b>Part</b>	<b>Mark</b>	<b>Answer</b>	<b>Further Information</b>
(a)	1	12 (edges)	
(b)	1	8 (vertices)	
<b>Total</b>	<b>2</b>		

<b>Question number</b>	<b>21</b>		
<b>Part</b>	<b>Mark</b>	<b>Answer</b>	<b>Further Information</b>
(a)	1	68 (minutes)	
(b)	1	Cecity	
<b>Total</b>	<b>2</b>		

Question number	22		
Part	Mark	Answer	Further Information
(a)	1		
(b)	1	(isosceles) trapezium	<p>If the shape plotted in (a) is not a trapezium then “trapezium” should not be awarded a mark.</p> <p>If the shape plotted in (a) is a quadrilateral which is correctly named, one mark should be awarded.</p>
<b>Total</b>	<b>2</b>		

Question number	23		
Part	Mark	Answer	Further Information
(a)	1	11	
(b)	1	38	
<b>Total</b>	<b>2</b>		

Question number	24		
Part	Mark	Answer	Further Information
	2	$  \begin{array}{r}  \boxed{3} \boxed{5} \boxed{3} \boxed{7} \\  - \quad \boxed{8} \boxed{4} \boxed{4} \boxed{8} \\  \hline  \boxed{2} \boxed{6} \boxed{9} \boxed{2} \boxed{2}  \end{array}  $	For 1 mark accept any 3 or 4 correct values.
<b>Total</b>	<b>2</b>		

Question number	25		
Part	Mark	Answer	Further Information
	2	28 (pens)	Award 1 mark for evidence of a complete method. e.g. $(12 \div 3) \times 7$  <b>or</b>  for sight of <b>40</b> indicating total number of pens.
<b>Total</b>	<b>2</b>		

Question number	26		
Part	Mark	Answer	Further Information
(a)	1	6	
(b)	1	4 (%)	
<b>Total</b>	<b>2</b>		

