Answer Sheet: Maths Assessment Year 6 Term 3: Algebra

<table>
<tr><th>question</th><th>answer</th><th>marks</th><th>notes</th></tr>
<tr><td colspan="4">1. Use simple formulae.</td></tr>
<tr><td>a</td><td>a = 6, b = 7, c = 19</td><td>3</td><td></td></tr>
<tr><td>b</td><td>d = 2, e = 12, f = 4</td><td>3</td><td></td></tr>
<tr><td>c</td><td>y = 27, y = 51, y = 49</td><td>3</td><td></td></tr>
<tr><td>d</td><td>£1.38
30 rubbers</td><td>3</td><td>For the second part, 2 marks for a correct answer, but 1 mark for correct calculations with only 1 error in calculating.</td></tr>
<tr><td colspan="4">2. Generate and describe linear number sequences.</td></tr>
<tr><td>a</td><td>84, 93</td><td>1</td><td></td></tr>
<tr><td>b</td><td>63</td><td>1</td><td></td></tr>
<tr><td>c</td><td>45, 49</td><td>1</td><td></td></tr>
<tr><td>d</td><td><table><tr><th>term</th><th>calculation</th><th>value</th></tr><tr><td>1st</td><td>3 x 1 - 7</td><td>-4</td></tr><tr><td>5th</td><td>4 x 5 + 9</td><td>29</td></tr><tr><td>10th</td><td>4 x 20 + 9</td><td>89</td></tr><tr><td>25th</td><td>4 x 100 + 9</td><td>409</td></tr></table></td><td>4</td><td>Award one mark for each box correctly completed.</td></tr>
<tr><td>e</td><td>5n-4
71
25th term</td><td>3</td><td></td></tr>
<tr><td colspan="4">3. Express missing number problems algebraically.</td></tr>
<tr><td>a</td><td>15h + 12</td><td>1</td><td></td></tr>
<tr><td>b</td><td>p = q + 8 and p - 8 = q</td><td>2</td><td>Allow any expression which is correct (p + 1 = q – 9).</td></tr>
<tr><td>c</td><td>All must be ringed</td><td>1</td><td></td></tr>
<tr><td>di.</td><td>£62</td><td>1</td><td rowspan="2">For the second part, 2 marks for a correct answer, but 1 mark for correct calculations with only 1 error in calculating.</td></tr>
<tr><td>ii.</td><td>35 pairs</td><td>2</td></tr>
<tr><td>e</td><td>15n – 5</td><td>1</td><td></td></tr>
</table>

<table>
<tr><th>question</th><th>answer</th><th>marks</th><th>notes</th></tr>
<tr><td colspan="4">4. Find pairs of numbers that satisfy an equation with two unknowns.</td></tr>
<tr><td>a</td><td>1 x 30, 2 x 15, 5 x 6</td><td>1</td><td>1 mark for all 3 pairs.</td></tr>
<tr><td>b</td><td>1 x 12, 2 x 6, 3 x 4</td><td>1</td><td>1 mark for all 3 pairs.</td></tr>
<tr><td>c</td><td>e = 7, f = 5
g = 11, h = 4
l = 10, j = 8</td><td>3</td><td>1 mark for each correct pair.</td></tr>
<tr><td colspan="4">5. Enumerate possibilities of combinations of two variables.</td></tr>
<tr><td></td><td>21 + 9 = 30
22 + 9 = 31</td><td>1</td><td>1 mark for all 3 correct combinations identified.</td></tr>
<tr><td></td><td><table><tr><th>Value of a</th><th>Value of b</th></tr><tr><td>3</td><td>11</td></tr><tr><td>6</td><td>17</td></tr><tr><td>10</td><td>25</td></tr><tr><td>18</td><td>41</td></tr></table></td><td>4</td><td></td></tr>
<tr><td colspan="2"></td><td>Total
40</td><td></td></tr>
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