

Question	Working	Answer	Mark	Notes																								
1	<p>60, 120, 180, 240, 300, 360, 420, 480, 540, ... 135, 270, 405, 540, ...</p> <p>or</p> <p>$60 = 2 \times 2 \times 3 \times 5$ or $15 \times 2 \times 2$ $135 = 3 \times 3 \times 3 \times 5$ or $15 \times 3 \times 3$</p> <p>or</p> <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>5</td><td>60</td><td>135</td></tr> <tr><td>3</td><td>12</td><td>27</td></tr> <tr><td></td><td>4</td><td>9</td></tr> </table>	5	60	135	3	12	27		4	9			<p>M1 for a correct list of multiples up to 540 or 60 and 135 written as a correct product of primes - factors may be on ends of trees or in ladder diagrams (so expect to see 3, 3, 3, 4 and 5 or equivalent e.g. 3, 4, 5, 9) or correct factor grid</p> <p>The following is common:</p> <table style="margin-left: auto; margin-right: auto;"> <tr><td>5</td><td>60</td><td>135</td></tr> <tr><td>3</td><td>12</td><td>27</td></tr> <tr><td>4</td><td>4</td><td>9</td></tr> <tr><td>9</td><td>1</td><td>9</td></tr> <tr><td></td><td>1</td><td>1</td></tr> </table>	5	60	135	3	12	27	4	4	9	9	1	9		1	1
5	60	135																										
3	12	27																										
	4	9																										
5	60	135																										
3	12	27																										
4	4	9																										
9	1	9																										
	1	1																										
		540	2	A1																								
				Total 2 marks																								
2	$9n - 7 = 214$			M1 or for working out the 24 th and 25 th terms																								
		No and $n = 24.55\dots$ or $9n = 221$ and 221 is not a multiple of 9 or 24th term = 209, 25th term = 218	2	<p>A1 oe (e.g. No with either 24.5 or 24.6 (or better)) – for A1 must see ‘No’ + appropriate values</p> <p>A0 if No and $n = \frac{221}{9}$ only</p> <p>For A1 it must be explicitly clear that $n = \frac{221}{9}$ is not an integer</p> <p>e.g. No and $n = \frac{221}{9}$ is not an integer/whole number is A1</p>																								
				Total 2 marks																								