

Question		Working	Answer	Mark	Notes																								
1		60, 120, 180, 240, 300, 360, 420, 480, 540, ... 135, 270, 405, 540, ... or $60 = 2 \times 2 \times 3 \times 5$ or $15 \times 2 \times 2$ $135 = 3 \times 3 \times 3 \times 5$ or $15 \times 3 \times 3$ or <table border="1"><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			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 The following is common: <table><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 $n = 24.55\ldots$ or $9n = 221$ and 221 is not a multiple of 9 or 24th term = 209, 25th term = 218	2	A1 oe (e.g. No with either 24.5 or 24.6 (or better)) – for A1 must see ‘No’ + appropriate values A0 if No and $n = \frac{221}{9}$ only For A1 it must be explicitly clear that $n = \frac{221}{9}$ is not an integer e.g. No and $n = \frac{221}{9}$ is not an integer/whole number is A1																								
					Total 2 marks																								