

## Geometric Sequences

<b>(a)</b>	<b>(b)</b>	<b>(c)</b>	<b>(d)</b>
Find the next two terms in the sequence 7, 14, 28, 56, ...  <b>112, 224</b>	Find the next two terms in the sequence 40, 20, 10, 5, ...  <b>2.5, 1.25</b>	Find the first four terms of the sequence with first term 2 and common ratio 3  <b>2, 6, 18, 54</b>	Find the first term and common ratio for the sequence: 3, 15, 75, 375, ...  <b><math>a = 3, r = 5</math></b>
<b>(e)</b>	<b>(f)</b>	<b>(g)</b>	<b>(h)</b>
Find the first term and common ratio for the sequence: 160, 80, 40, 20, ...  <b><math>a = 160, r = \frac{1}{2}</math></b>	Find the next two terms in the sequence 2, -4, 8, -16, ...  <b>32, -64</b>	Find the first four terms of the sequence with first term 120 and common ratio 0.5  <b>120, 60, 30, 15</b>	Find the first term and common ratio for the sequence: 4, -8, 16, -32, ...  <b><math>a = 4, r = -2</math></b>
<b>(i)</b>	<b>(j)</b>	<b>(k)</b>	<b>(l)</b>
Find the first four terms of the sequence with first term 5 and common ratio -2  <b>5, -10, 20, -40</b>	Find the first four terms of the sequence with nth term $6 \times 3^{n-1}$  <b>6, 18, 54, 162</b>	Find the nth term of the sequence with first term 10 and common ratio 4  <b><math>10 \times 4^{n-1}</math></b>	Find the nth term of the sequence with first term 250 and common ratio 0.2  <b><math>250 \times 0.2^{n-1}</math></b>
<b>(m)</b>	<b>(n)</b>	<b>(p)</b>	
Find the first four terms of the sequence with nth term $400 \times \left(\frac{1}{2}\right)^{n-1}$  <b>400, 200, 100, 50</b>	Find the nth term of the sequence with first term 8 and common ratio -5  <b><math>8 \times (-5)^{n-1}</math></b>	A tree starts with four branches. Every month each branch splits into two. How many branches will the tree have after 5 months? Find a formula for the number of branches $b$ after $n$ months.  <b>128</b> <b><math>b = 4 \times 2^{n-1}</math></b>	