
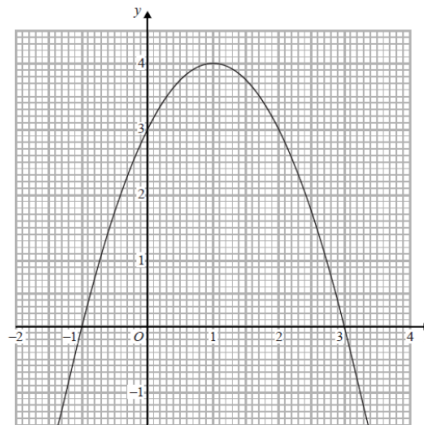



Quadratic sequences

<p>Write the first 3 terms of a sequence with n^{th} term:</p> <ol style="list-style-type: none"> $6n - 1$ $10 - \frac{2}{3}n$ $0.5n^2 + 2.5$ $3n^2 + 2n + 1$ 	<p>What value(s) is / are in both these sequences?</p> <p>Sequence with n^{th} term: $n^2 + 2n - 4$</p> <p>Sequence with n^{th} term: $n + 2$</p>	<p>Sketch the graphs of these sequences by plotting n (x-axis) against the n^{th} term (y-axis) What can you deduce from the graphs?</p> <p>Sequence 1: $n^2 - 3$ Sequence 2: $2n + 5$</p> 																				
<p>For a given sequence, n^{th} term $\propto n^2$</p> <p>If the constant of proportionality is 5, what is the 60th value of the sequence? What type of sequence is this?</p>	<p>Find the equation of this graph from its table of coordinates:</p> <table border="1" data-bbox="739 462 1354 516"> <tbody> <tr> <td>x</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>y</td> <td>-2</td> <td>5</td> <td>14</td> <td>25</td> </tr> </tbody> </table>	x	1	2	3	4	y	-2	5	14	25	<p>Match the n^{th} term to a correct description of the terms in the sequence:</p> <table data-bbox="1386 730 1995 1006"> <tbody> <tr> <td>$n^2 + 1$</td> <td>Always even</td> </tr> <tr> <td>$n^2 + n$</td> <td>Always odd</td> </tr> <tr> <td>$n^2 \div 3$</td> <td>Sometimes even, sometimes odd</td> </tr> <tr> <td>$2n^2$</td> <td>Sometimes an integer</td> </tr> <tr> <td>$n^2 + 3n + \frac{3}{5}$</td> <td>Never an integer</td> </tr> </tbody> </table>	$n^2 + 1$	Always even	$n^2 + n$	Always odd	$n^2 \div 3$	Sometimes even, sometimes odd	$2n^2$	Sometimes an integer	$n^2 + 3n + \frac{3}{5}$	Never an integer
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<p>Circle the value that is NOT a term of the sequence:</p> <ol style="list-style-type: none"> $n^2 + 5$ {14, 41, 57, 105} $n^2 - 1$ {15, 35, 63, 82} $2n^2$ {108, 116, 128, 162} $n^2 + 10n$ {1, 38, 56, 119} 	<p>What is the second difference of this sequence?</p> <p>-1, 2, 9, 20...</p> <hr/> <p>Is this an arithmetic sequence? How do you know?</p> <p>2, 10, ____, 38, ____ ...</p> <p>Fill in the missing terms</p>	<p>What's the equation of this graph?</p> 																				
<p>What is the n^{th} term of these sequences?</p> <ol style="list-style-type: none"> 6, 9, 14, 21... 12, 19, 26, 33 ... 3, 9, 17, 39, 53... 0, 6, 14, 24, 36 ... <p>Which of these is an arithmetic sequence?</p> <p>Are any of these geometric sequences?</p>	 <p>What is the name of this sequence?</p> <p>What is the n^{th} term for this sequence?</p>																					