

**Analysis of the Sequence of Minimum but Ideal Number of Axioms  
Generated By Geometric Systems of N Complexity**

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**ABSTRACT:** This paper details the list of axioms, along with their total number of axioms in sequence, that will always apply and be relevant to geometrical systems of N complexity, or N number of points. It relies on the following:

*a) the points are not always organized regularly or are in any given position*

*b) the points may be congruent or in the same reference but are not identical.*

**FINDINGS:**

The findings of the sequence to date are as follows:

<b>System Complexity</b>	<b>System Axioms</b>	<b>Value of Index</b>
<b>0</b>		<b>0</b>
<b>1</b>	-Point equals itself  -Point does not equal what is not that point  -Point may form a regular solid within n-1 dimensions.	<b>3</b>
<b>2</b>	-Point equals itself  -Point does not equal what is not that point	<b>5</b>

	<ul style="list-style-type: none"> <li>-Point forms a regular solid within n-1 dimensions.</li> <li>-Points may be compared</li> <li>-Points may be connected</li> </ul>	
<p><b>3</b></p>	<ul style="list-style-type: none"> <li>-Point equals itself</li> <li>-Point does not equal what is not that point</li> <li>-Point forms a regular solid within n-1 dimensions.</li> <li>-Points may be compared</li> <li>-Points may be compared relatively to another</li> <li>-Points may be connected cyclically</li> <li>-Points may exist between or within solids in n-2 dimensions</li> <li>-Point connections may be intersected</li> </ul>	<p><b>8</b></p>
<p><b>4</b></p>	<ul style="list-style-type: none"> <li>-Point equals itself</li> <li>-Point does not equal what is not that point</li> <li>-Point forms a regular solid within n-1 dimensions.</li> <li>-Points may be compared</li> <li>-Points may be compared relatively to another</li> <li>-Points may be connected cyclically</li> </ul>	<p><b>9</b></p>

	<ul style="list-style-type: none"> <li>-Points may exist between or within solids in <math>n-2</math> dimensions</li> <li>-Point connections may be intersected</li> <li>-Point comparisons may be compared to unconnected comparisons</li> </ul>	
<b>5</b>	<ul style="list-style-type: none"> <li>-Point equals itself</li> <li>-Point does not equal what is not that point</li> <li>-Point forms a regular solid within <math>n-1</math> dimensions.</li> <li>-Points may be compared</li> <li>-Points may be compared relatively to another</li> <li>-Points may be connected cyclically</li> <li>-Points may exist between or within solids in <math>n-2</math> dimensions</li> <li>-Point connections may intersect</li> <li>-Point comparisons may be compared to unconnected comparisons</li> <li>-Point comparison chains may be compared relatively to each other.</li> </ul>	<b>10</b>
<b>6</b>	<ul style="list-style-type: none"> <li>-Point equals itself</li> <li>-Point does not equal what is not that point</li> </ul>	<b>11</b>

	<p>-Point forms a regular solid within <math>n-1</math> dimensions.</p> <p>-Points may be compared</p> <p>-Points may be compared relatively to another</p> <p>-Points may be connected cyclically</p> <p>-Points may exist between or within solids in <math>n-2</math> dimensions</p> <p>-Point connections may intersect</p> <p>-Point comparisons may be compared to unconnected comparisons</p> <p>-Point comparison chains may be compared relatively to each other.</p> <p>-Point comparison chains may be compared to each other.</p>	
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**CONCLUSION:**

The findings of the sequence to date are as follows:

*The most reasonable number of encompassing statements in a randomly assigned geometric system for  $n$  complexity is 0-6 is 0,3,5,8,9,10,11 for that number of points in a geometric system.*