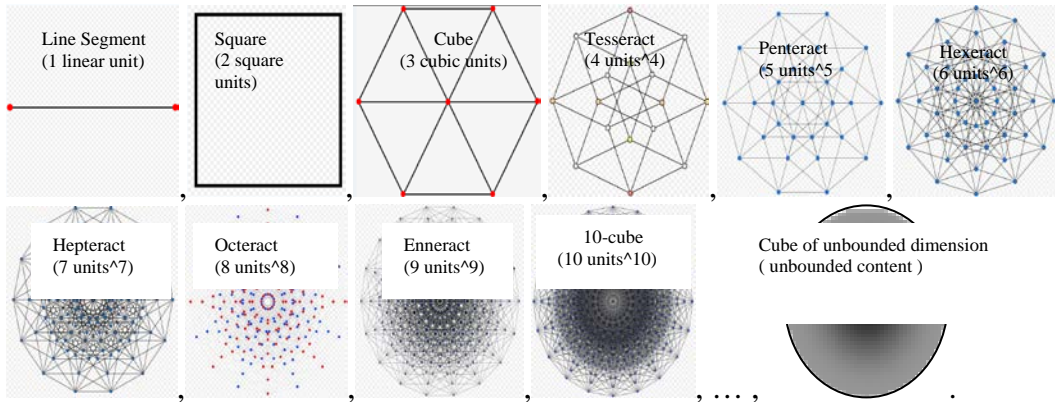


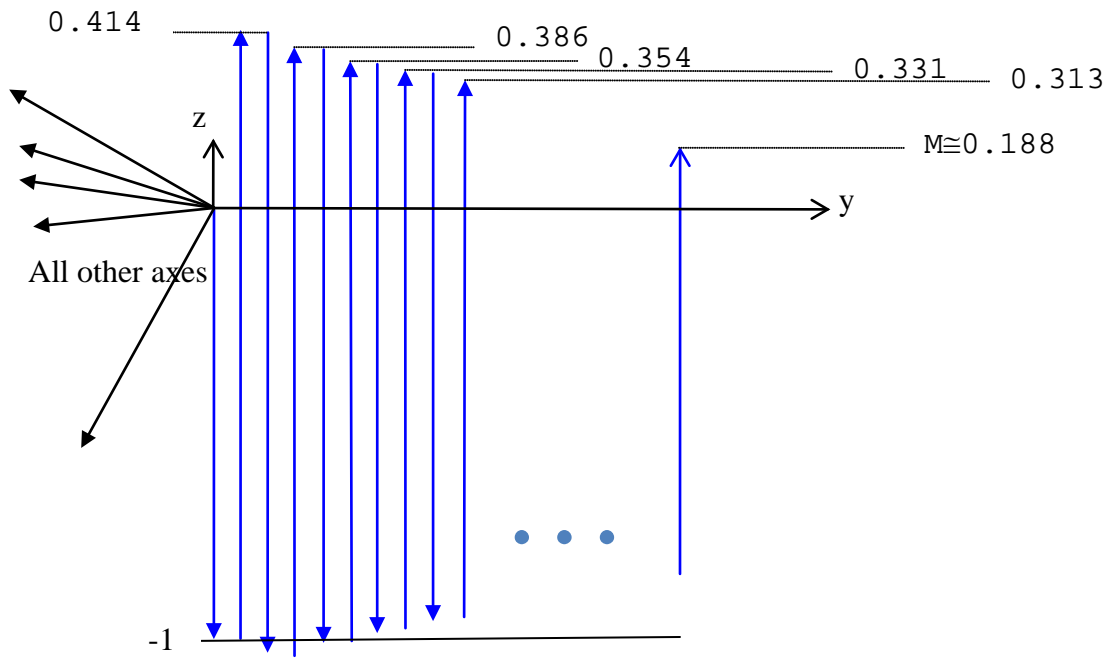
**The Geometry of the MRB  
Constant**

By Marvin Ray Burns

Consider this sequence of n-cubes:



1. Notice that each n-cube has a content equal to its dimension. <sup>[1]</sup>
2. On the y,z-plane line up an edge of each n-cube as in the diagram below.
3. M is the value of the MRB constant. <sup>[2]</sup>  
 A numerical approximation of M can be computed by the following summation.  $\text{Sum}[(-1)^n \cdot (n^{1/n} - 1), \{n, \text{Infinity}\}]$ . <sup>[3]</sup>



[1]

<http://www23.wolframalpha.com/input/?i=n-cube>

[2]

S. R. Finch, *Mathematical Constants*, Cambridge, 2003, pp. 448-452.

[3]

<http://mathworld.wolfram.com/MRBCConstant.html>