

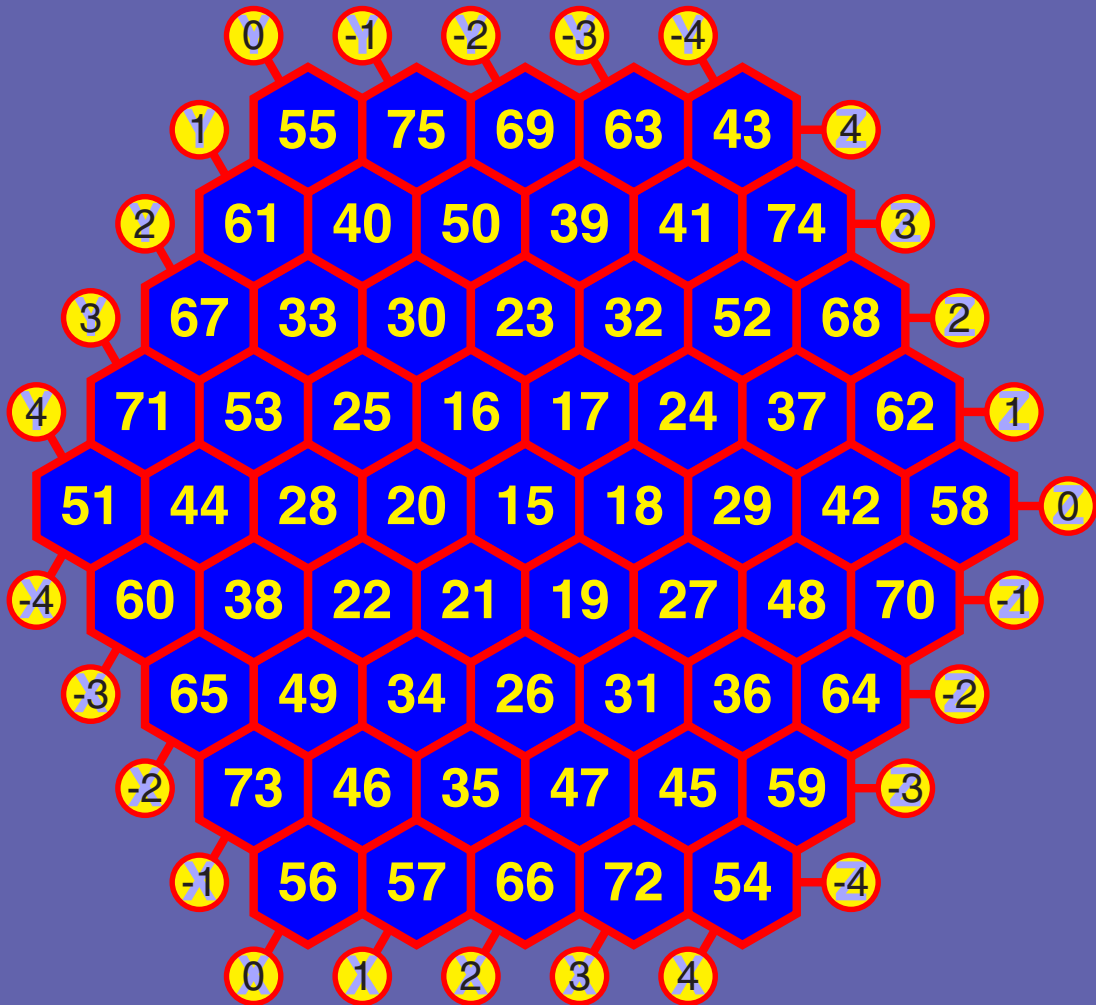
Magic Hexes; Why One?

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The Illustration on The Front Cover is a 5 Ring Magical Hexagon.
It uses the complete range of 61 integers from 15 to 75.
Each Linear Row adds to the Magic Number 305.
The Following diagram is a Key to the Location of each number.

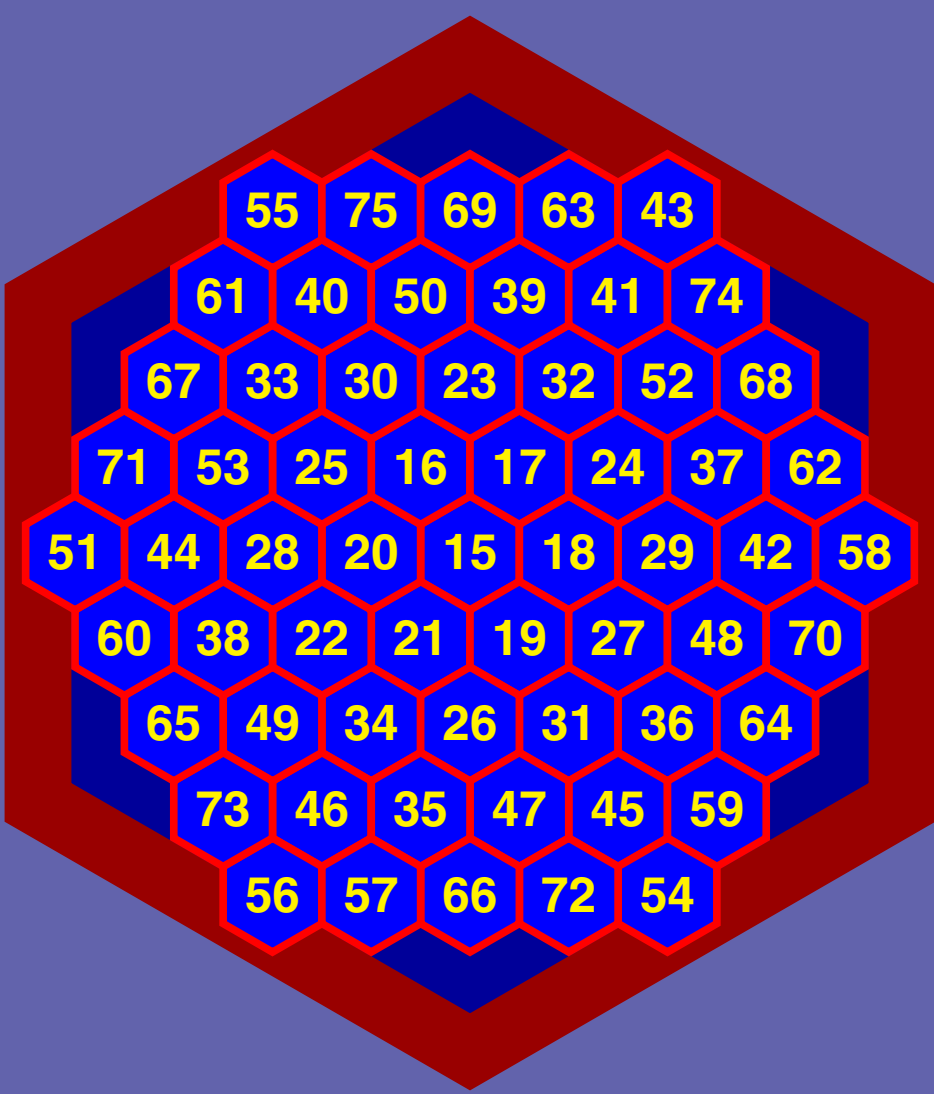
Number Map
N = {X,Y,Z}

15 = {0,0,0}
16 = {-1,0,1}
17 = {0,-1,1}
18 = {1,-1,0}
19 = {1,0,-1}
20 = {-1,1,0}
21 = {0,1,-1}
22 = {-1,2,-1}
23 = {-1,-1,2}
24 = {1,-2,1}
25 = {-2,1,1}
26 = {1,1,-2}
27 = {2,-1,-1}
28 = {-2,2,0}
29 = {2,-2,0}
30 = {-2,0,2}
31 = {2,0,-2}
32 = {0,-2,2}
33 = {-3,1,2}
34 = {0,2,-2}
35 = {1,2,-3}
36 = {3,-1,-2}
37 = {2,-3,1}
38 = {-2,3,-1}
39 = {-1,-2,3}
40 = {-3,0,3}
41 = {0,-3,3}
42 = {3,-3,0}
43 = {0,-4,4}
44 = {-3,3,0}



Number Map
N = {X,Y,Z}

45 = {3,0,-3}
46 = {0,3,-3}
47 = {2,1,-3}
48 = {3,-2,-1}
49 = {-1,3,-2}
50 = {-2,-1,3}
51 = {-4,4,0}
52 = {1,-3,2}
53 = {-3,2,1}
54 = {4,0,-4}
55 = {-4,0,4}
56 = {0,4,-4}
57 = {1,3,-4}
58 = {4,-4,0}
59 = {4,-1,-3}
60 = {-3,4,-1}
61 = {-4,1,3}
62 = {3,-4,1}
63 = {-1,-3,4}
64 = {4,-2,-2}
65 = {-2,4,-2}
66 = {2,2,-4}
67 = {-4,2,2}
68 = {2,-4,2}
69 = {-2,-2,4}
70 = {4,-3,-1}
71 = {-4,3,1}
72 = {3,1,-4}
73 = {-1,4,-3}
74 = {1,-4,3}
75 = {-3,-1,4}



Magic Hexagon:

An Arrangement of Close Packed Hexagons Containing the numbers 1, 2, 3Such that the numbers along each straight Line add to the same number.

- Eric W. Weisstein. "Magic Hexagon."

From MathWorld--A Wolfram Web Resource. <http://mathworld.wolfram.com/MagicHexagon.html>

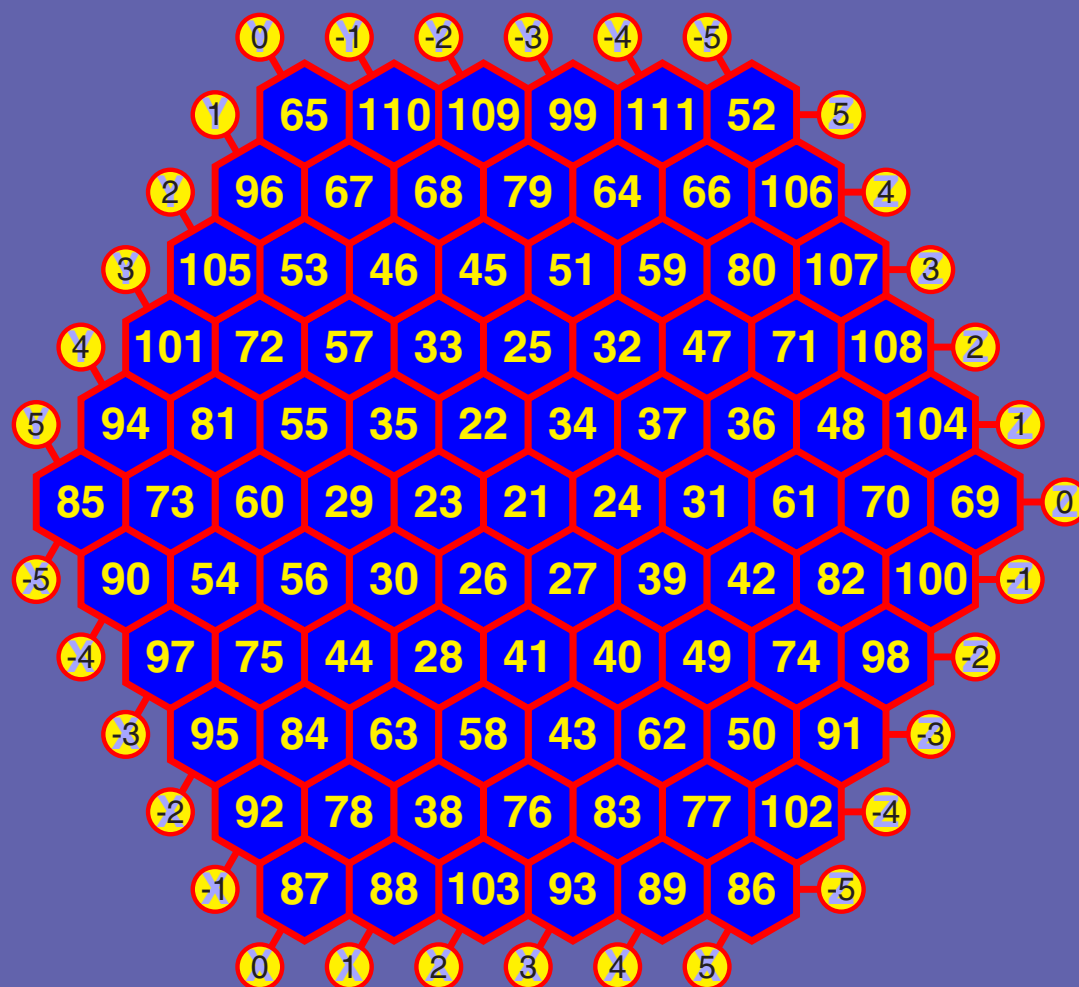
Magic Hexes; Why One?

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The Illustration on The Inside Back Cover is a 6 Ring Magical Hexagon.
It uses the complete range of 91 integers from 21 to 111.
Each Linear Row adds to the Magic Number 546.
The Following diagram is a Key to the Location of each number.

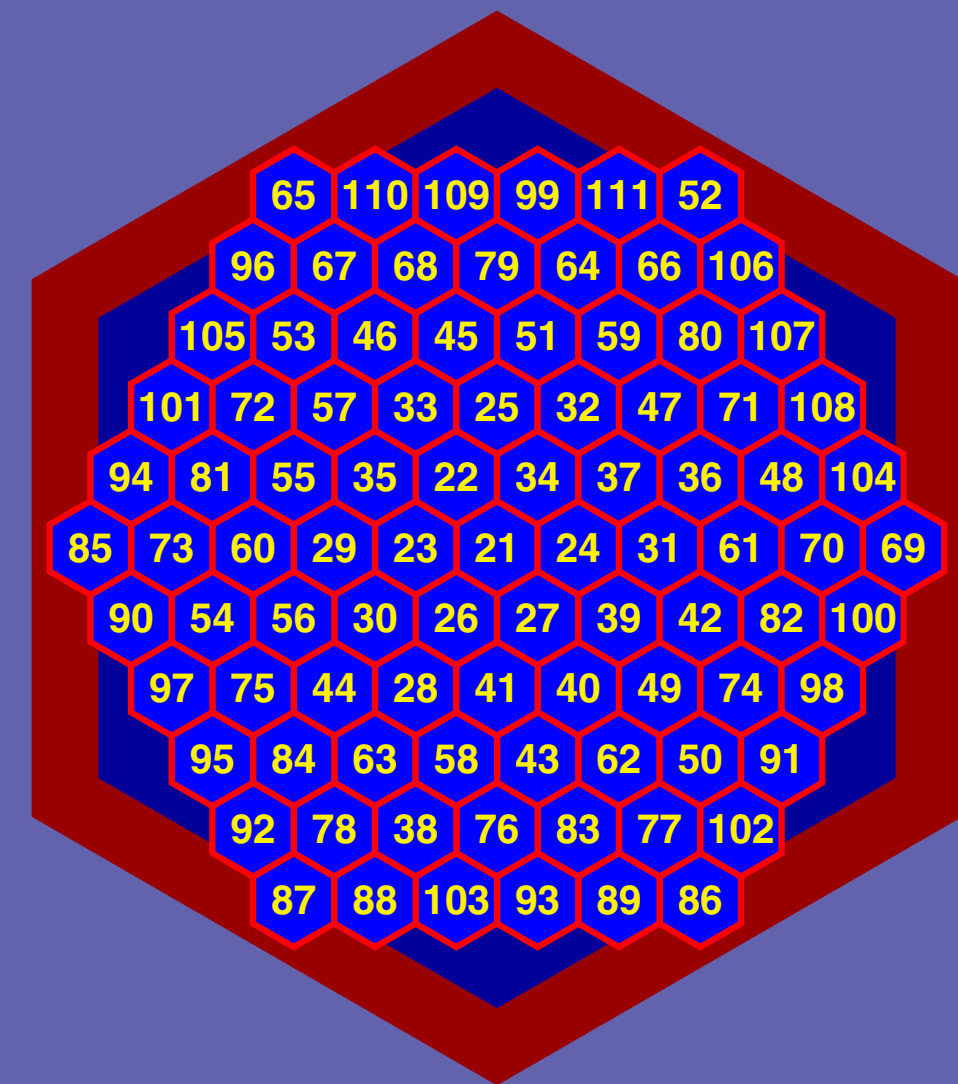
NUMBER MAP
N = (X,Y,Z)

21 = (0,0,0)
22 = (1,-1,0)
23 = (-1,1,0)
24 = (1,0,-1)
25 = (-1,0,1)
26 = (1,2,-1)
27 = (0,1,-1)
28 = (0,2,-2)
29 = (2,1,1)
30 = (2,0,2)
31 = (-1,-1,2)
32 = (0,-2,2)
33 = (2,2,0)
34 = (2,0,-2)
35 = (0,-1,1)
36 = (2,2,0)
37 = (2,-1,-1)
38 = (1,3,-4)
39 = (-1,2,3)
40 = (1,-2,1)
41 = (1,-3,2)
42 = (2,1,3)
43 = (2,-3,1)
44 = (1,1,-2)
45 = (3,-1,-2)
46 = (2,-1,3)
47 = (-3,2,1)
48 = (3,-4,1)
49 = (3,-2,-1)
50 = (4,-1,-3)
51 = (-1,3,-2)
52 = (0,-5,5)
53 = (-4,1,3)
54 = (-3,4,-1)
55 = (-3,0,3)
56 = (-3,3,0)
57 = (-2,3,-1)
58 = (3,-3,0)
59 = (0,3,-3)
60 = (-3,1,2)
61 = (0,-3,3)
62 = (3,0,-3)
63 = (1,2,-3)
64 = (-1,3,4)
65 = (-5,0,5)



NUMBER MAP
N = (X,Y,Z)

66 = (0,-4,4)
67 = (-4,0,4)
68 = (-3,-1,4)
69 = (5,-5,0)
70 = (4,-4,0)
71 = (2,-4,2)
72 = (-4,2,2)
73 = (-4,4,0)
74 = (4,-2,2)
75 = (-2,4,-2)
76 = (2,2,-4)
77 = (4,0,-4)
78 = (0,4,-4)
79 = (-2,2,-4)
80 = (1,-4,3)
81 = (-4,3,1)
82 = (4,-3,-1)
83 = (3,1,-4)
84 = (-1,4,-3)
85 = (-5,5,0)
86 = (5,0,5)
87 = (0,5,-5)
88 = (1,4,-5)
89 = (4,1,-5)
90 = (-4,5,-1)
91 = (5,-2,-3)
92 = (-1,5,-4)
93 = (3,2,-5)
94 = (-5,4,-1)
95 = (-2,5,-3)
96 = (-5,1,4)
97 = (3,5,-2)
98 = (5,-3,-2)
99 = (-2,-3,5)
100 = (5,-4,-1)
101 = (-5,3,-2)
102 = (5,-1,-4)
103 = (2,3,-5)
104 = (4,-5,-1)
105 = (-5,2,3)
106 = (1,-5,4)
107 = (2,-5,3)
108 = (3,-5,2)
109 = (-3,-2,5)
110 = (-4,-1,5)
111 = (-1,-4,5)



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