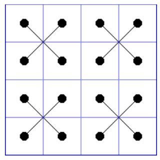
Theorem 12 {connection figure (1234 2143 5678 6587)]



There exists a one to one mapping F from the set of general 4x4-magic squares with connection figure (1122 3344 5566 7788) [see Theorems 1.1, 1.2, 1.3] onto the set of general magic 4x4 squares of connection figure (1234 2143 5678 6587):

```
        c01 c02 c03 c04         c01 c06 c11 c16
        c05 c06 c07 c08         c05 c02 c15 c12
    F:  c09 c10 c11 c12   -->   c09 c14 c03 c08
        c13 c14 c15 c16         c13 c10 c07 c04
```

For any symmetric subset T with 16 elements, containing 1, of {1,...,N} there are 0 or 364 general 4x4 magic squares with entries from T.
The subsets T, which allow general 4x4 magic squares are described in Theorems 1.1 and 1.2.

Proof

An easy verification.

Example

Via F, its inverse mapping F^{-1}, and the 384 transformations of Theorem 1.1, every general 4x4 magic square with entry 1 and connection figure (1234 2143 5678 6587) can be derived from the square:

1	11	14	8
6	16	9	3
15	5	4	10
12	2	7	13.