S6 10次元表現

$$\frac{1}{2}\begin{pmatrix} 0 & 0 & 0 & 1 & 0 & 0 & 0 & -1 & 0 & 0 \\ -1 & 0 & 1 & 0 & -1 & 0 & 1 & 0 & 0 & 0 \\ 1 & 0 & -1 & 0 & -1 & 0 & 1 & 0 & 0 & 0 \\ 0 & -2 & 0 & 0 & 0 & 2 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 0 & 0 & 1 & 0 & 0 \\ 1 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 \\ -1 & 0 & -1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 2 & 0 \\ 0 & 2 & 0 & 0 & 0 & 2 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 2 \end{pmatrix}, \begin{pmatrix} 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \end{pmatrix}$$

```
(
[ 0  0  0  1  0  0  0 -1  0  0]  [ 1  0  0  0  0  0
0  0  0  0]
[-1  0  1  0 -1  0  1  0  0  0]  [ 0  0 -1  0  0  0
0  0  0  0]
[ 1  0 -1  0 -1  0  1  0  0  0]  [ 0 -1  0  0  0  0
0  0  0  0]
[ 0 -2  0  0  0  2  0  0  0  0]  [ 0  0  0  1  0  0
0  0  0  0]
[ 0  0  0  1  0  0  0  1  0  0]  [ 0  0  0  0  1  0
0  0  0  0]
[ 1  0  1  0  1  0  1  0  0  0]  [ 0  0  0  0  0  0
1  0  0  0]
[-1  0 -1  0  1  0  1  0  0  0]  [ 0  0  0  0  0  1
0  0  0  0]
[ 0  0  0  0  0  0  0  0  2  0]  [ 0  0  0  0  0  0
0  0  0  1]
[ 0  2  0  0  0  2  0  0  0  0]  [ 0  0  0  0  0  0
0  0  1  0]
[ 0  0  0  0  0  0  0  0  0  2], [ 0  0  0  0  0  0
0  1  0  0]
)
```

(1)/(2)([0,0,0,1,0,0,0,-1,0,0],[-1,0,1,0,-1,0,1,0,0,0],[1,0,-1,0,-1,0,1,0,0,0],
[0,-2,0,0,0,2,0,0,0,0],[0,0,0,1,0,0,0,1,0,0],[1,0,1,0,1,0,1,0,0,0],[-1,0,-1,0,1,0,1,0,0,0],
[0,0,0,0,0,0,0,0,2,0],[0,2,0,0,0,2,0,0,0,0],[0,0,0,0,0,0,0,0,0,2])quad,
([1,0,0,0,0,0,0,0,0,0],[0,0,-1,0,0,0,0,0,0,0],[0,-1,0,0,0,0,0,0,0,0],[0,0,0,1,0,0,0,0,0,0],
[0,0,0,0,1,0,0,0,0,0],[0,0,0,0,0,0,1,0,0,0],[0,0,0,0,0,1,0,0,0,0],[0,0,0,0,0,0,0,0,0,1],
[0,0,0,0,0,0,0,0,1,0],[0,0,0,0,0,0,0,1,0,0])