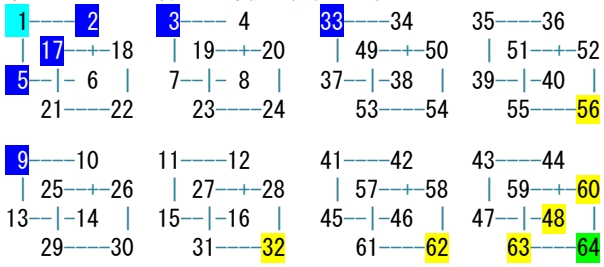
第６章 ： 多次元超立体魔方陣の研究-II：摂田 寛二
第４-5 節 ： 六次元超立体二方陣の構成と展開: Part 2-5

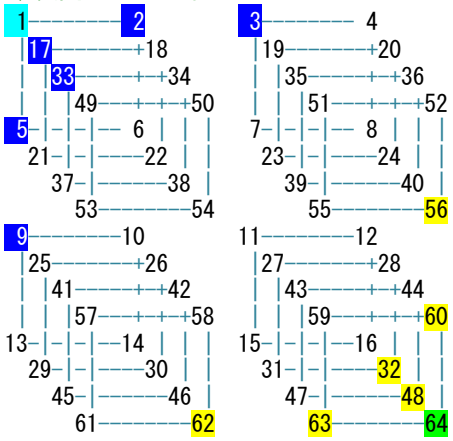
０．今節は，前節を増補する続編。同じテーマで行った最新の実験結果の報告をしたい。
　前節では，新しい基本図群と定義式群によって**正方連結完全汎立体四方陣**を作りながら，同時に他の５種類の魔方陣群を作ったのであった。そうして，全てが六次元超立体二方陣の「直系」であることを立証しようとした。
　今回は，同じ基本図群を用いて二次元**多重四方陣型正方連結完全汎八方陣**を作りながら，同時に他の５種類の魔方陣群を作ろうと思う。全体として同一の結果を再現したい。

１．基本図群は前節とまったく同じにする。そして定義式群を次のように変える。

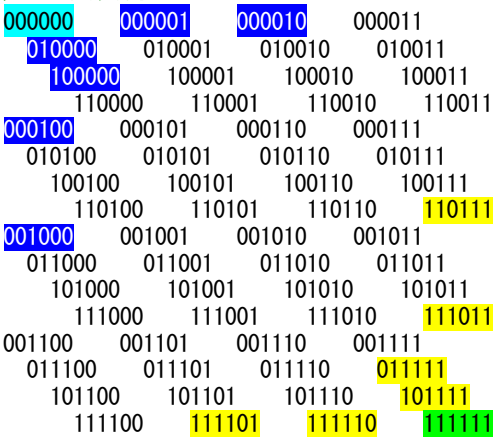
/六次元超立体二方陣の展開基本図



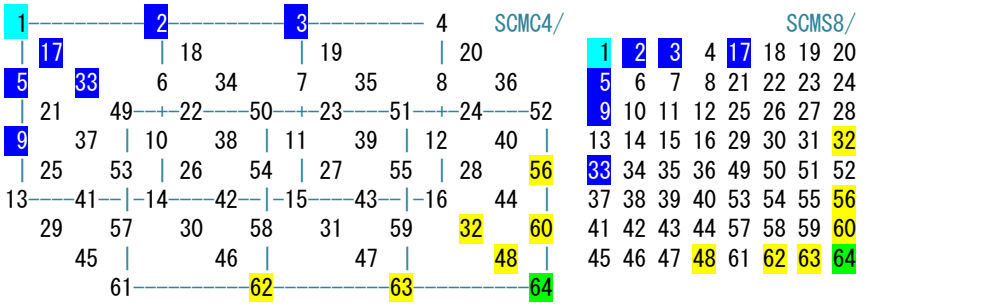
/展開図の並べ替え

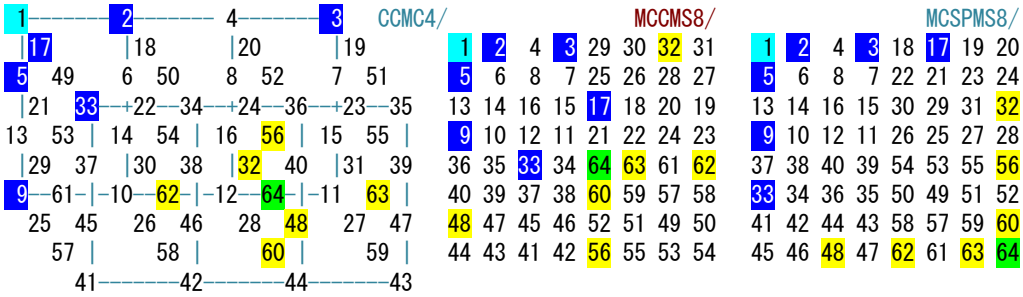


/二進法表現



/二種類の変換図：補数対称型(中段)と完全型(下段)：立方体四方陣(左)と正方形八方陣(右)





今回の入り口は，上図最下段の中央にある MCCMS8/ である。
この基本図を頼りに「逆関数」を解く要領で，次の定義式を立てる。
このタイプは，正方連結完全汎八方陣であるが，同時に（４×４）×４の多重四方陣型で，各四方陣内で行列の四数定和が成り立つが，主対角線の定和は要求しない。

```
//
//** 多重四方陣型正方連結完全汎八方陣用の定義式群 **
//
//** 基本図:0/［拡張方陣空間］**
//   .--.--.--.--.--.--.--.--.
//   | 1| 2| 4| 3|29|30|32|31| 1
//   |--+--+--+--+--+--+--+--|
//   | 5| 6| 8| 7|25|26|28|27| 5
//   |--+--+--+--+--+--+--+--|
//   |13|14|16|15|17|18|20|19|13
//   |--+--+--+--+--+--+--+--|
//   | 9|10|12|11|21|22|24|23| 9
//   |--+--+--+--+--+--+--+--|
//   |36|35|33|34|64|63|61|62|36
//   |--+--+--+--+--+--+--+--|
//   |40|39|37|38|60|59|57|58|40
//   |--+--+--+--+--+--+--+--|
//   |48|47|45|46|52|51|49|50|48
//   |--+--+--+--+--+--+--+--|
//   |44|43|41|42|56|55|53|54|44
//   '--'--'--'--'--'--'--'--'
//     1  2  4  3 29 30 32 31  1
//
//** 正方連結四数の定和式: S=130; **
//   n1+n2+n5+n6=S     ...c1;   n2+n4+n6+n8=S     ...c2;   n4+n3+n8+n7=S     ...c3;
//   n3+n29+n7+n25=S   ...c4;   n29+n30+n25+n26=S ...c5;   n30+n32+n26+n28=S ...c6;
//   n32+n31+n28+n27=S ...c7;   n31+n1+n27+n5=S   ...c8;   n5+n6+n13+n14=S   ...c9;
//   n6+n8+n14+n16=S   ...c10;  n8+n7+n16+n15=S   ...c11;  n7+n25+n15+n17=S  ...c12;
//   n25+n26+n17+n18=S ...c13;  n26+n28+n18+n20=S ...c14;  n28+n27+n20+n19=S ...c15;
//   n27+n5+n19+n13=S  ...c16;  n13+n14+n9+n10=S  ...c17;  n14+n16+n10+n12=S ...c18;
//   n16+n15+n12+n11=S ...c19;  n15+n17+n11+n21=S ...c20;  n17+n18+n21+n22=S ...c21;
//   n18+n20+n22+n24=S ...c22;  n20+n19+n24+n23=S ...c23;  n19+n13+n23+n9=S  ...c24;
//   n9+n10+n36+n35=S  ...c25;  n10+n12+n35+n33=S ...c26;  n12+n11+n33+n34=S ...c27;
//   n11+n21+n34+n64=S ...c28;  n21+n22+n64+n63=S ...c29;  n22+n24+n63+n61=S ...c30;
//   n24+n23+n61+n62=S ...c31;  n23+n9+n62+n36=S  ...c32;  n36+n35+n40+n39=S ...c33;
//   n35+n33+n39+n37=S ...c34;  n33+n34+n37+n38=S ...c35;  n34+n64+n38+n60=S ...c36;
//   n64+n63+n60+n59=S ...c37;  n63+n61+n59+n57=S ...c38;  n61+n62+n57+n58=S ...c39;
//   n62+n36+n58+n40=S ...c40;  n40+n39+n48+n47=S ...c41;  n39+n37+n47+n45=S ...c42;
//   n37+n38+n45+n46=S ...c43;  n38+n60+n46+n52=S ...c44;  n60+n59+n52+n51=S ...c45;
//   n59+n57+n51+n49=S ...c46;  n57+n58+n49+n50=S ...c47;  n58+n40+n50+n48=S ...c48;
//   n48+n47+n44+n43=S ...c49;  n47+n45+n43+n41=S ...c50;  n45+n46+n41+n42=S ...c51;
//   n46+n52+n42+n56=S ...c52;  n52+n51+n56+n55=S ...c53;  n51+n49+n55+n53=S ...c54;
//   n49+n50+n53+n54=S ...c55;  n50+n48+n54+n44=S ...c56;  n44+n43+n1+n2=S   ...c57;
//   n43+n41+n2+n4=S   ...c58;  n41+n42+n4+n3=S   ...c59;  n42+n56+n3+n29=S  ...c60;
//   n56+n55+n29+n30=S ...c61;  n55+n53+n30+n32=S ...c62;  n53+n54+n32+n31=S ...c63;
//   n54+n44+n31+n1=S  ...c64;
//
//** 完全型補数の定和式: CC=65; **
//   n1+n64=n2+n63=n3+n62=n4+n61=n5+n60=n6+n59=n7+n58=n8+n57=
//   n9+n56=n10+n55=n11+n54=n12+n53=n13+n52=n14+n51=n15+n50=n16+n49=
//   n17+n48=n18+n47=n19+n46=n20+n45=n21+n44=n22+n43=n23+n42=n24+n41=
//   n25+n40=n26+n39=n27+n38=n28+n37=n29+n36=n30+n35=n31+n34=n32+n33=
//   n33+n32=n34+n31=n35+n30=n36+n29=n37+n28=n38+n27=n39+n26=n40+n25=
//   n41+n24=n42+n23=n43+n22=n44+n21=n45+n20=n46+n19=n47+n18=n48+n17=
//   n49+n16=n50+n15=n51+n14=n52+n13=n53+n12=n54+n11=n55+n10=n56+n9=
//   n57+n8=n58+n7=n59+n6=n60+n5=n61+n4=n62+n3=n63+n2=n64+n1=CC;
//
//** 基本定和式: S=130; LSM=260; **
//   n1+n2+n4+n3=S   ...row1; n29+n30+n32+n31=S ...row2;
//   n1+n5+n13+n9+=S ...clm1; n36+n40+n48+n44=S ...clm2;
//   n1+n6+n16+n11+n64+n59+n49+n54=LSM ...pd;
//
```

２．早速にもこれを解く最新プログラムのリストを掲載する。最小構成版である。

[Program List]

```
//** Make the Extra-Cubic Magic Objects of Order 2^6 and Five **
//**  types of 'SC' and 'CC' MC444 and MS88 at the same time  **
//** File: 'ECO26MCC88.c' Dictated by Kanji Setsuda in 2005;  **
//**  Revised on Nov. 2, 2013, on Oct.26, 2015, and on **
//**  Nov.20, 2015 with MacOSX EIC 10.11.1 and Xcode 7.1.1 **
//
#include <stdio.h>
//
//* Variables *
long int cnt;
short cnt1, cnt2, cnt3;
short CC, SSM, LSM;
short nm[65], uflg[65];
//
//* Sub-Routines *
void stp01(void), stp02(void), stp03(void), stp04(void), stp05(void);
void stp06(void), stp07(void), stp08(void), stp09(void), stp10(void);
void stp11(void), stp12(void), stp13(void), stp14(void), stp15(void);
void stp16(void), stp17(void), stp18(void), stp19(void), stp20(void);
void stp21(void), stp22(void), stp23(void), stp24(void), stp25(void);
void stp26(void), stp27(void), stp28(void), stp29(void), stp30(void);
void stp31(void), stp32(void), stp33(void);
void ans26print(void);
void pr1pat26(void), pr2pat26(void), pr3pat26(void);
//
//* Main Program *
int main(){
 short n;
  printf("\n");
  printf("** Make the Extra-Cubic Magic Objects of Order 2^6 and 5 types of\n");
  printf("    'SC' and 'CC' Magic Cubes 4^3 and Squares 8^2 at the same time **\n");
  printf("\n");
  CC=65; SSM=130; LSM=260; cnt=0; cnt1=0; cnt3=0;
  for(n=0;n<65;n++){nm[n]=0; uflg[n]=0;}
  stp01();   //* Begin the Calculations *
  printf(" [Count(n1==1/All) = %d/%ld]  OK!\n",cnt1,cnt);
  printf("\n");
  printf("** Calculated and Listed by Kanji Setsuda on\n");
  printf("    Nov.20, 2015 with MacOSX EIC 10.11.1 and Xcode 7.1.1 **\n");
  printf("\n");
 return 0;
}
//
//* Begin the Calculations *
//* Define Level 1: *
//* Set N1 & n64 *
void stp01(){
 short a,b;
  for(a=1;a<65;a++){b=CC-a;
    if((uflg[a]==0)&&(uflg[b]==0)){cnt2=0;
      nm[1]=a; nm[64]=b;
      uflg[a]=1; uflg[b]=1;
      stp02();
      uflg[b]=0; uflg[a]=0;}
  }
}
//* Set N2 & n63 *
void stp02(){
 short a,b;
  for(a=64;a>0;a--){b=CC-a;
```

```
    if((uflg[a]==0)&&(uflg[b]==0)){if(nm[1]==1){cnt2=0;}
      nm[2]=a; nm[63]=b;
      uflg[a]=1; uflg[b]=1;
      stp03();
      uflg[b]=0; uflg[a]=0;}
  }
}
//* Set N3 & n62 *
void stp03(){
 short a,b;
  for(a=64;a>0;a--){b=CC-a;
    if((uflg[a]==0)&&(uflg[b]==0)){//if(nm[1]==1){cnt2=0;}
      nm[3]=a; nm[62]=b;
      uflg[a]=1; uflg[b]=1;
      stp04();
      uflg[b]=0; uflg[a]=0;}
  }
}
//* Set n4=130-n1-n2-n3 & n61 *
void stp04(){
 short a,b;
  a=SSM-nm[1]-nm[2]-nm[3];
  if((0<a)&&(a<65)){
    b=SSM-nm[64]-nm[63]-nm[62];
    if(a+b==CC){
      if((uflg[a]==0)&&(uflg[b]==0)){
        nm[4]=a; nm[61]=b;
        uflg[a]=1; uflg[b]=1;
        stp05();
        uflg[b]=0; uflg[a]=0;}}}
}
//* Set N5 & n60 *
void stp05(){
 short a,b;
  for(a=64;a>0;a--){b=CC-a;
    if((uflg[a]==0)&&(uflg[b]==0)){//if(nm[1]==1){cnt2=0;}
      nm[5]=a; nm[60]=b;
      uflg[a]=1; uflg[b]=1;
      stp06();
      uflg[b]=0; uflg[a]=0;}
  }
}
//* Set n6=130-n1-n2-n5 & n59 *
void stp06(){
 short a,b;
  a=SSM-nm[1]-nm[2]-nm[5];
  if((0<a)&&(a<65)){
    b=SSM-nm[64]-nm[63]-nm[60];
    if(a+b==CC){
      if((uflg[a]==0)&&(uflg[b]==0)){
        nm[6]=a; nm[59]=b;
        uflg[a]=1; uflg[b]=1;
        stp07();
        uflg[b]=0; uflg[a]=0;}}}
}
//* Set n8=130-n2-n4-n6 & n57 *
void stp07(){
 short a,b;
  a=SSM-nm[2]-nm[4]-nm[6];
  if((0<a)&&(a<65)){
    b=SSM-nm[63]-nm[61]-nm[59];
    if(a+b==CC){
      if((uflg[a]==0)&&(uflg[b]==0)){
        nm[8]=a; nm[57]=b;
```

```
          uflg[a]=1; uflg[b]=1;
          stp08();
          uflg[b]=0; uflg[a]=0;}}}
}
//* Set n7=130-n4-n3-n8 & n58 *
void stp08(){
 short a,b;
  a=SSM-nm[4]-nm[3]-nm[8];
  if((0<a)&&(a<65)){
    b=SSM-nm[61]-nm[62]-nm[57];
    if(a+b==CC){
      if((uflg[a]==0)&&(uflg[b]==0)){
        nm[7]=a; nm[58]=b;
        uflg[a]=1; uflg[b]=1;
        stp09();
        uflg[b]=0; uflg[a]=0;}}}
}
//* Level 2: *
//* Set N9 & n56 *
void stp09(){
 short a,b;
  for(a=64;a>0;a--){b=CC-a;
    if((uflg[a]==0)&&(uflg[b]==0)){
      nm[9]=a; nm[56]=b;
      uflg[a]=1; uflg[b]=1;
      stp10();
      uflg[b]=0; uflg[a]=0;}
  }
}
//* Set n13=130-n1-n5-n9 & n52 *
void stp10(){
 short a,b;
  a=SSM-nm[1]-nm[5]-nm[9];
  if((0<a)&&(a<65)){
    b=SSM-nm[64]-nm[60]-nm[56];
    if(a+b==CC){
      if((uflg[a]==0)&&(uflg[b]==0)){
        nm[13]=a; nm[52]=b;
        uflg[a]=1; uflg[b]=1;
        stp11();
        uflg[b]=0; uflg[a]=0;}}}
}
//* Set n14=130-n5-n6-n13 & n51 *
void stp11(){
 short a,b;
  a=SSM-nm[5]-nm[6]-nm[13];
  if((0<a)&&(a<65)){
    b=SSM-nm[60]-nm[59]-nm[52];
    if(a+b==CC){
      if((uflg[a]==0)&&(uflg[b]==0)){
        nm[14]=a; nm[51]=b;
        uflg[a]=1; uflg[b]=1;
        stp12();
        uflg[b]=0; uflg[a]=0;}}}
}
//* Set n16=130-n6-n8-n14 & n49 *
void stp12(){
 short a,b;
  a=SSM-nm[6]-nm[8]-nm[14];
  if((0<a)&&(a<65)){
    b=SSM-nm[59]-nm[57]-nm[51];
    if(a+b==CC){
      if((uflg[a]==0)&&(uflg[b]==0)){
        nm[16]=a; nm[49]=b;
```

```
          uflg[a]=1; uflg[b]=1;
          stp13();
          uflg[b]=0; uflg[a]=0;}}}
}
//* Set n15=130-n8-n7-n16 & n50 *
void stp13(){
 short a,b;
  a=SSM-nm[8]-nm[7]-nm[16];
  if((0<a)&&(a<65)){
    b=SSM-nm[57]-nm[58]-nm[49];
    if(a+b==CC){
      if((uflg[a]==0)&&(uflg[b]==0)){
        nm[15]=a; nm[50]=b;
        uflg[a]=1; uflg[b]=1;
        stp14();
        uflg[b]=0; uflg[a]=0;}}}
}
//* Set n10=130-n13-n14-n10 & n55 *
void stp14(){
 short a,b;
  a=SSM-nm[13]-nm[14]-nm[9];
  if((0<a)&&(a<65)){
    b=SSM-nm[52]-nm[51]-nm[56];
    if(a+b==CC){
      if((uflg[a]==0)&&(uflg[b]==0)){
        nm[10]=a; nm[55]=b;
        uflg[a]=1; uflg[b]=1;
        stp15();
        uflg[b]=0; uflg[a]=0;}}}
}
//* Set n12=130-n14-n16-n10 & n53 *
void stp15(){
 short a,b;
  a=SSM-nm[14]-nm[16]-nm[10];
  if((0<a)&&(a<65)){
    b=SSM-nm[51]-nm[49]-nm[55];
    if(a+b==CC){
      if((uflg[a]==0)&&(uflg[b]==0)){
        nm[12]=a; nm[53]=b;
        uflg[a]=1; uflg[b]=1;
        stp16();
        uflg[b]=0; uflg[a]=0;}}}
}
//* Set n11=130-n16-n15-n12 & n54 *
void stp16(){
 short a,b;
  a=SSM-nm[16]-nm[15]-nm[12];
  if((0<a)&&(a<65)){
    b=SSM-nm[49]-nm[50]-nm[53];
    if(a+b==CC){
      if((uflg[a]==0)&&(uflg[b]==0)){
        nm[11]=a; nm[54]=b;
        uflg[a]=1; uflg[b]=1;
        stp17();
        uflg[b]=0; uflg[a]=0;}}}
}
//* Level 3: *
//* Set n17 & n48 *
void stp17(){
 short a,b;
  for(a=64;a>0;a--){b=CC-a;
    if((uflg[a]==0)&&(uflg[b]==0)){//if(nm[1]==1){cnt2=0;}
      nm[17]=a; nm[48]=b;
      uflg[a]=1; uflg[b]=1;
```

```
        stp18();
        uflg[b]=0; uflg[a]=0;}
   }
}
//* Set n21=130-n15-n17-n11 & n44 *
void stp18(){
 short a,b;
   a=SSM-nm[15]-nm[17]-nm[11];
   if((0<a)&&(a<65)){
      b=SSM-nm[50]-nm[48]-nm[54];
      if(a+b==CC){
       if((uflg[a]==0)&&(uflg[b]==0)){
         nm[21]=a; nm[44]=b;
         uflg[a]=1; uflg[b]=1;
         stp19();
         uflg[b]=0; uflg[a]=0;}}}
}
//* Set n22=130-n21-n64-n63 & n43 *
void stp19(){
 short a,b;
   a=SSM-nm[21]-nm[64]-nm[63];
   if((0<a)&&(a<65)){
      b=SSM-nm[44]-nm[1]-nm[2];
      if(a+b==CC){
        if((uflg[a]==0)&&(uflg[b]==0)){
          nm[22]=a; nm[43]=b;
          uflg[a]=1; uflg[b]=1;
          stp20();
          uflg[b]=0; uflg[a]=0;}}}
}
//* Set n24=130-n22-n63-n61 & n41 *
void stp20(){
 short a,b;
   a=SSM-nm[22]-nm[63]-nm[61];
   if((0<a)&&(a<65)){
      b=SSM-nm[43]-nm[2]-nm[4];
      if((a+b==CC)&&(b>0)){
        if((uflg[a]==0)&&(uflg[b]==0)){
          nm[24]=a; nm[41]=b;
          uflg[a]=1; uflg[b]=1;
          stp21();
          uflg[b]=0; uflg[a]=0;}}}
}
//* Set n23=130-n24-n61-n62 & n42 *
void stp21(){
 short a,b;
   a=SSM-nm[24]-nm[61]-nm[62];
   if((0<a)&&(a<65)){
      b=SSM-nm[41]-nm[4]-nm[3];
      if((a+b==CC)&&(b>0)){
        if((uflg[a]==0)&&(uflg[b]==0)){
          nm[23]=a; nm[42]=b;
          uflg[a]=1; uflg[b]=1;
          stp22();
          uflg[b]=0; uflg[a]=0;}}}
}
//* Set n18=130-n17-n21-n22 & n47 *
void stp22(){
 short a,b;
   a=SSM-nm[17]-nm[21]-nm[22];
   if((0<a)&&(a<65)){
      b=SSM-nm[48]-nm[44]-nm[43];
      if((a+b==CC)&&(b>0)){
        if((uflg[a]==0)&&(uflg[b]==0)){
```

```
          nm[18]=a; nm[47]=b;
          uflg[a]=1; uflg[b]=1;
          stp23();
          uflg[b]=0; uflg[a]=0;}}}
}
//* Set n20=130-n4-n3-n20 & n45 *
void stp23(){
 short a,b;
   a=SSM-nm[18]-nm[22]-nm[24];
   if((0<a)&&(a<65)){
      b=SSM-nm[47]-nm[43]-nm[41];
      if(a+b==CC){
        if((uflg[a]==0)&&(uflg[b]==0)){
          nm[20]=a; nm[45]=b;
          uflg[a]=1; uflg[b]=1;
          stp24();
          uflg[b]=0; uflg[a]=0;}}}
}
//* Set n19=130-n20-n24-n23 & n46 *
void stp24(){
 short a,b,c,d;
   a=SSM-nm[20]-nm[24]-nm[23];
   if((0<a)&&(a<65)){
      b=SSM-nm[45]-nm[41]-nm[42];
      if(a+b==CC){
        c=SSM-nm[13]-nm[23]-nm[9];
        d=SSM-nm[52]-nm[42]-nm[56];
        if((a==c)&&(b==d)){
          if((uflg[a]==0)&&(uflg[b]==0)){
            nm[19]=a; nm[46]=b;
            uflg[a]=1; uflg[b]=1;
            stp25();
            uflg[b]=0; uflg[a]=0;}}}}
}
//* Level 4: *
//* Set n25=130-n7-n15-n17 & n42 *
void stp25(){
 short a,b;
   a=SSM-nm[7]-nm[15]-nm[17];
   if((0<a)&&(a<65)){
      b=SSM-nm[58]-nm[50]-nm[48];
      if(a+b==CC){
        if((uflg[a]==0)&&(uflg[b]==0)){
          nm[25]=a; nm[40]=b;
          uflg[a]=1; uflg[b]=1;
          stp26();
          uflg[b]=0; uflg[a]=0;}}}
}
//* Set n29=130-n3-n7-n25 & n36 *
void stp26(){
 short a,b,c,d,e;
   a=SSM-nm[3]-nm[7]-nm[25];
   if((0<a)&&(a<65)){
      b=SSM-nm[62]-nm[58]-nm[40];
      if(a+b==CC){
        c=SSM-nm[42]-nm[56]-nm[3];
        d=SSM-nm[23]-nm[9]-nm[62];
        e=SSM-nm[40]-nm[48]-nm[44];
        if((a==c)&&(b==d)&&(b==e)){
          if((uflg[a]==0)&&(uflg[b]==0)){
            nm[29]=a; nm[36]=b;
            uflg[a]=1; uflg[b]=1;
            stp27();
            uflg[b]=0; uflg[a]=0;}}}}
```

```
}
//* Set n26=130-n25-n17-n18 & n39 *
void stp27(){
 short a,b;
  a=SSM-nm[25]-nm[17]-nm[18];
  if((0<a)&&(a<65)){
    b=SSM-nm[40]-nm[48]-nm[47];
    if(a+b==CC){
      if((uflg[a]==0)&&(uflg[b]==0)){
        nm[26]=a; nm[39]=b;
        uflg[a]=1; uflg[b]=1;
        stp28();
        uflg[b]=0; uflg[a]=0;}}}
}
//* Set n30=130-n29-n25-n26 & n35 *
void stp28(){
 short a,b,c,d;
  a=SSM-nm[29]-nm[25]-nm[26];
  if((0<a)&&(a<65)){
    b=SSM-nm[36]-nm[40]-nm[39];
    if((a+b==CC)&&(b>0)){
      c=SSM-nm[56]-nm[55]-nm[29];
      d=SSM-nm[9]-nm[10]-nm[36];
      if((a==c)&&(b==d)){
        if((uflg[a]==0)&&(uflg[b]==0)){
          nm[30]=a; nm[35]=b;
          uflg[a]=1; uflg[b]=1;
          stp29();
          uflg[b]=0; uflg[a]=0;}}}}
}
//* Set n28=130-n26-n18-n20 & n37 *
void stp29(){
 short a,b;
  a=SSM-nm[26]-nm[18]-nm[20];
  if((0<a)&&(a<65)){
    b=SSM-nm[39]-nm[47]-nm[45];
    if(a+b==CC){
      if((uflg[a]==0)&&(uflg[b]==0)){
        nm[28]=a; nm[37]=b;
        uflg[a]=1; uflg[b]=1;
        stp30();
        uflg[b]=0; uflg[a]=0;}}}
}
//* Set n32=130-n30-n26-n28 & n33 *
void stp30(){
 short a,b,c,d;
  a=SSM-nm[30]-nm[26]-nm[28];
  if((0<a)&&(a<65)){
    b=SSM-nm[35]-nm[39]-nm[37];
    if(a+b==CC){
      c=SSM-nm[55]-nm[53]-nm[30];
      d=SSM-nm[10]-nm[12]-nm[35];
      if((a==c)&&(b==d)){
        if((uflg[a]==0)&&(uflg[b]==0)){
          nm[32]=a; nm[33]=b;
          uflg[a]=1; uflg[b]=1;
          stp31();
          uflg[b]=0; uflg[a]=0;}}}}
}
//* Set n27=130-n28-n20-n19 & n38 *
void stp31(){
 short a,b,c,d;
  a=SSM-nm[28]-nm[20]-nm[19];
  if((0<a)&&(a<65)){
```

```
    b=SSM-nm[37]-nm[45]-nm[46];
    if(a+b==CC){
      c=SSM-nm[5]-nm[19]-nm[13];
      d=SSM-nm[60]-nm[46]-nm[52];
      if((a==c)&&(b==d)){
        if((uflg[a]==0)&&(uflg[b]==0)){
          nm[27]=a; nm[38]=b;
          uflg[a]=1; uflg[b]=1;
          stp32();
          uflg[b]=0; uflg[a]=0;}}}}
}
//* Set n31=130-n32-n28-n27 & n34 *
void stp32(){
 short a,b,c,d,e,f;
  a=SSM-nm[32]-nm[28]-nm[27];
  if((0<a)&&(a<65)){
    b=SSM-nm[33]-nm[37]-nm[38];
    if(a+b==CC){
      c=SSM-nm[1]-nm[27]-nm[5];
      d=SSM-nm[53]-nm[54]-nm[32];
      e=SSM-nm[54]-nm[44]-nm[1];
      f=SSM-nm[29]-nm[30]-nm[32];
      if((a==c)&&(a==d)&&(a==e)&&(a==f)){
        if((uflg[a]==0)&&(uflg[b]==0)){
          nm[31]=a; nm[34]=b;
          uflg[a]=1; uflg[b]=1;
          stp33();
          uflg[b]=0; uflg[a]=0;}}}}
}
//* Last Check if n1+n6+n16+n11+n64+n59+n49+n54=SSM *
void stp33(){
 short sm;
  sm=nm[1]+nm[6]+nm[16]+nm[11]+nm[64]+nm[59]+nm[49]+nm[54];
  if(sm==LSM){ans26print();}
}
//
//* Print Procedure for Listing the Answers *
void ans26print(){
  cnt++; if(nm[1]==1){cnt1++;}
  cnt2++;
  if(cnt2==1){
    printf(" %ld/ECO2^6\n",cnt);
    pr1pat26();
    pr2pat26();
    pr3pat26();
  }
}
//
//* Print the Pattern-1 *
//  0/ECO2^6
//   1---- 2      3---- 4      33----34     35----36
//   | 17--+-18   | 19--+-20    | 49--+-50   | 51--+-52
//   5--|- 6  |   7--|- 8  |   37--|-38  |  39--|-40  |
//     21----22     23----24      53----54     55----56
//
//   9----10     11----12      41----42     43----44
//   | 25--+-26   | 27--+-28    | 57--+-58   | 59--+-60
//  13--|-14  |  15--|-16  |   45--|-46  |  47--|-48  |
//     29----30     31----32      61----62     63----64
//
void pr1pat26(){
  printf("%4d----%2d%7d----%2d",nm[1],nm[2],nm[3],nm[4]);
  printf("%8d----%2d%7d----%2d\n",nm[33],nm[34],nm[35],nm[36]);
  printf("   |%3d--+-%2d   |%3d--+-%2d",nm[17],nm[18],nm[19],nm[20]);
  printf("    |%3d--+-%2d   |%3d--+-%2d\n",nm[49],nm[50],nm[51],nm[52]);
```

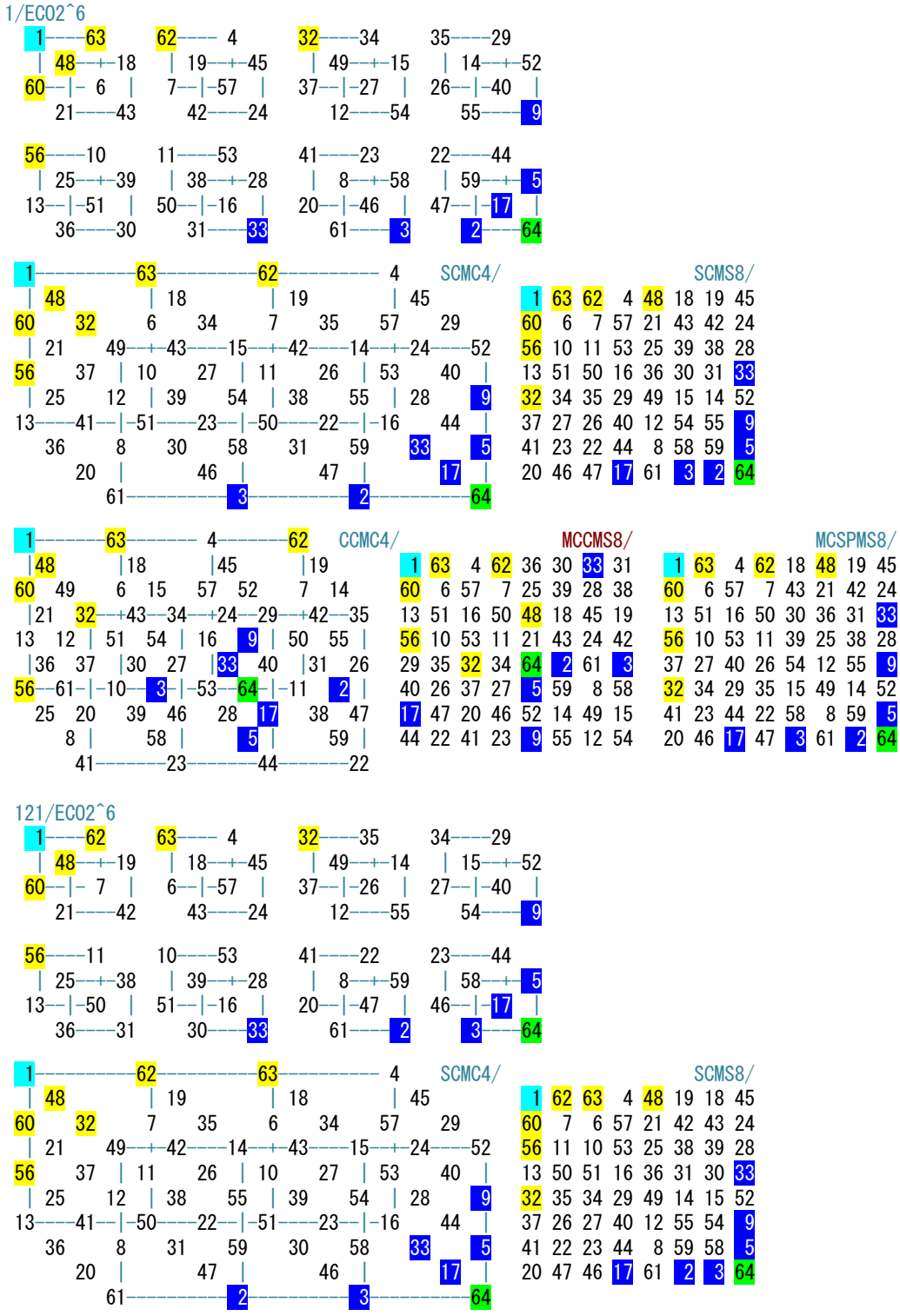
```
   printf("%4d--|-%2d  |%4d--|-%2d  |",nm[5],nm[6],nm[7],nm[8]);
   printf("%5d--|-%2d  |%4d--|-%2d  |\n",nm[37],nm[38],nm[39],nm[40]);
   printf("%7d----%2d%7d----%2d",nm[21],nm[22],nm[23],nm[24]);
   printf("%8d----%2d%7d----%2d\n",nm[53],nm[54],nm[55],nm[56]);
   printf("\n");
 //
   printf("%4d----%2d%7d----%2d",nm[9],nm[10],nm[11],nm[12]);
   printf("%8d----%2d%7d----%2d\n",nm[41],nm[42],nm[43],nm[44]);
   printf("   |%3d--+-%2d   |%3d--+-%2d",nm[25],nm[26],nm[27],nm[28]);
   printf("    |%3d--+-%2d   |%3d--+-%2d\n",nm[57],nm[58],nm[59],nm[60]);
   printf("%4d--|-%2d  |%4d--|-%2d  |",nm[13],nm[14],nm[15],nm[16]);
   printf("%5d--|-%2d  |%4d--|-%2d  |\n",nm[45],nm[46],nm[47],nm[48]);
   printf("%7d----%2d%7d----%2d",nm[29],nm[30],nm[31],nm[32]);
   printf("%8d----%2d%7d----%2d\n",nm[61],nm[62],nm[63],nm[64]);
   printf("\n");
}
//
//* Print the Pattern-2 *
//  1---------- 2---------- 3---------- 4    SCMC4/                  SCMS8/
//  | 17        | 18        | 19        | 20          1  2  3  4 17 18 19 20
//  5    33     6    34     7    35     8    36       5  6  7  8 21 22 23 24
//  | 21    49--+-22----50--+-23----51--+-24----52    9 10 11 12 25 26 27 28
//  9    37   | 10    38   | 11    39   | 12    40   |  13 14 15 16 29 30 31 32
//  | 25    53  | 26    54  | 27    55  | 28    56   33 34 35 36 49 50 51 52
// 13----41--|-14----42--|-15----43--|-16    44   |  37 38 39 40 53 54 55 56
//    29    57    30    58    31    59    32    60   41 42 43 44 57 58 59 60
//       45  |       46  |       47  |       48  |   45 46 47 48 61 62 63 64
//         61----------62----------63----------64
//
void pr2pat26(){
   printf("%3d----------%2d----------%2d----------%2d    SCMC4/                  SCMS8/\n",
          nm[1],nm[2],nm[3],nm[4]);
   printf("  | %2d        | %2d        | %2d        | %2d",nm[17],nm[18],nm[19],nm[20]);
   printf("%11d%3d%3d%3d",nm[1],nm[2],nm[3],nm[4]);
   printf("%3d%3d%3d%3d\n",nm[17],nm[18],nm[19],nm[20]);
   printf("%3d%6d%6d%6d",nm[5],nm[33],nm[6],nm[34]);
   printf("%6d%6d%6d%6d",nm[7],nm[35],nm[8],nm[36]);
   printf("%8d%3d%3d%3d",nm[5],nm[6],nm[7],nm[8]);
   printf("%3d%3d%3d%3d\n",nm[21],nm[22],nm[23],nm[24]);
   printf("  | %2d%6d--+-%2d----%2d",nm[21],nm[49],nm[22],nm[50]);
   printf("--+-%2d----%2d--+-%2d----%2d",nm[23],nm[51],nm[24],nm[52]);
   printf("%5d%3d%3d%3d",nm[9],nm[10],nm[11],nm[12]);
   printf("%3d%3d%3d%3d\n",nm[25],nm[26],nm[27],nm[28]);
   printf("%3d%6d  | %2d%6d",nm[9],nm[37],nm[10],nm[38]);
   printf("  |%3d%6d  |%3d%6d  |",nm[11],nm[39],nm[12],nm[40]);
   printf("%5d%3d%3d%3d",nm[13],nm[14],nm[15],nm[16]);
   printf("%3d%3d%3d%3d\n",nm[29],nm[30],nm[31],nm[32]);
   printf("  | %2d%6d  |%3d%6d",nm[25],nm[53],nm[26],nm[54]);
   printf("  |%3d%6d  | %2d%6d",nm[27],nm[55],nm[28],nm[56]);
   printf("%5d%3d%3d%3d",nm[33],nm[34],nm[35],nm[36]);
   printf("%3d%3d%3d%3d\n",nm[49],nm[50],nm[51],nm[52]);
   printf("%3d----%2d--|-%2d----%2d",nm[13],nm[41],nm[14],nm[42]);
   printf("--|-%2d----%2d--|-%2d%6d  |",nm[15],nm[43],nm[16],nm[44]);
   printf("%5d%3d%3d%3d",nm[37],nm[38],nm[39],nm[40]);
   printf("%3d%3d%3d%3d\n",nm[53],nm[54],nm[55],nm[56]);
   printf("%6d%6d%6d%6d",nm[29],nm[57],nm[30],nm[58]);
   printf("%6d%6d%6d%6d",nm[31],nm[59],nm[32],nm[60]);
   printf("%5d%3d%3d%3d",nm[41],nm[42],nm[43],nm[44]);
   printf("%3d%3d%3d%3d\n",nm[57],nm[58],nm[59],nm[60]);
   printf("%9d  |%9d  |%9d  |%9d  |",nm[45],nm[46],nm[47],nm[48]);
   printf("%5d%3d%3d%3d",nm[45],nm[46],nm[47],nm[48]);
   printf("%3d%3d%3d%3d\n",nm[61],nm[62],nm[63],nm[64]);
   printf("%12d----------%2d----------%2d----------%2d\n",
          nm[61],nm[62],nm[63],nm[64]);
```

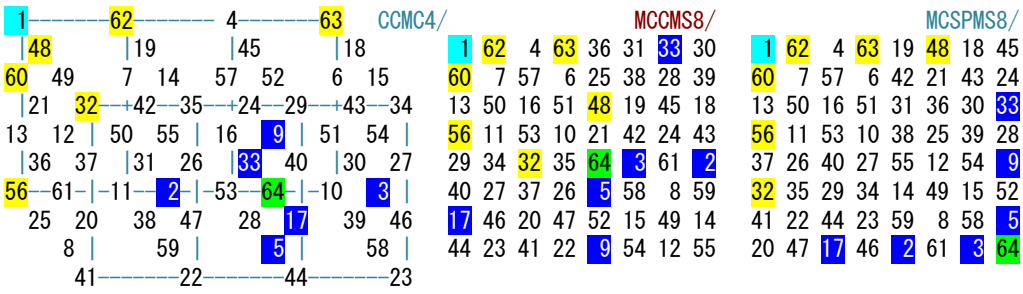
```
  printf("\n");
}
//
//** Print the Pattern-3 **
//  1------- 2------- 4------- 3   CCMC4/                MCCMS8/                   MCSPMS8/
//  |17      |18      |20      |19        1  2  4  3 29 30 32 31    1  2  4  3 18 17 19 20
//  5  49    6  50    8  52    7  51      5  6  8  7 25 26 28 27    5  6  8  7 22 21 23 24
//  |21  33--+22--34--+24--36--+23--35   13 14 16 15 17 18 20 19   13 14 16 15 30 29 31 32
// 13  53 | 14  54 | 16  56 | 15  55 |    9 10 12 11 21 22 24 23    9 10 12 11 26 25 27 28
//  |29  37  |30  38  |32  40  |31  39   36 35 33 34 64 63 61 62   37 38 40 39 54 53 55 56
//  9--61-|-10--62-|-12--64-|-11  63 |   40 39 37 38 60 59 57 58   33 34 36 35 50 49 51 52
//   25  45   26  46   28  48   27  47   48 47 45 46 52 51 49 50   41 42 44 43 58 57 59 60
//     57 |     58 |     60 |     59 |   44 43 41 42 56 55 53 54   45 46 48 47 62 61 63 64
//       41-------42-------44-------43
//
void pr3pat26(){
  printf("%3d-------%2d-------%2d-------%2d ",
         nm[1],nm[2],nm[4],nm[3]);
  printf("  CCMC4/               MCCMS8//                MCSPMS8/\n");
  printf("  |%2d      |%2d      |%2d      |%2d     ",
         nm[17],nm[18],nm[20],nm[19]);
  printf("%4d%3d%3d%3d%3d%3d%3d%3d",
         nm[1],nm[2],nm[4],nm[3],nm[29],nm[30],nm[32],nm[31]);
  printf("%5d%3d%3d%3d%3d%3d%3d%3d\n",
         nm[1],nm[2],nm[4],nm[3],nm[18],nm[17],nm[19],nm[20]);
  printf(" %2d  %2d   %2d  %2d   %2d  %2d   %2d  %2d   ",
         nm[5],nm[49],nm[6],nm[50],nm[8],nm[52],nm[7],nm[51]);
  printf("%4d%3d%3d%3d%3d%3d%3d%3d",
         nm[5],nm[6],nm[8],nm[7],nm[25],nm[26],nm[28],nm[27]);
  printf("%5d%3d%3d%3d%3d%3d%3d%3d\n",
         nm[5],nm[6],nm[8],nm[7],nm[22],nm[21],nm[23],nm[24]);
  printf("  |%2d  %2d--+%2d--%2d--+%2d--%2d--+%2d--%2d ",
         nm[21],nm[33],nm[22],nm[34],nm[24],nm[36],nm[23],nm[35]);
  printf("%4d%3d%3d%3d%3d%3d%3d%3d",
         nm[13],nm[14],nm[16],nm[15],nm[17],nm[18],nm[20],nm[19]);
  printf("%5d%3d%3d%3d%3d%3d%3d%3d\n",
         nm[13],nm[14],nm[16],nm[15],nm[30],nm[29],nm[31],nm[32]);
  printf(" %2d  %2d | %2d  %2d | %2d  %2d | %2d  %2d | ",
         nm[13],nm[53],nm[14],nm[54],nm[16],nm[56],nm[15],nm[55]);
  printf("%4d%3d%3d%3d%3d%3d%3d%3d",
         nm[9],nm[10],nm[12],nm[11],nm[21],nm[22],nm[24],nm[23]);
  printf("%5d%3d%3d%3d%3d%3d%3d%3d\n",
         nm[9],nm[10],nm[12],nm[11],nm[26],nm[25],nm[27],nm[28]);
  printf("  |%2d  %2d  |%2d  %2d  |%2d  %2d  |%2d  %2d ",
         nm[29],nm[37],nm[30],nm[38],nm[32],nm[40],nm[31],nm[39]);
  printf("%4d%3d%3d%3d%3d%3d%3d%3d",
         nm[36],nm[35],nm[33],nm[34],nm[64],nm[63],nm[61],nm[62]);
  printf("%5d%3d%3d%3d%3d%3d%3d%3d\n",
         nm[37],nm[38],nm[40],nm[39],nm[54],nm[53],nm[55],nm[56]);
  printf(" %2d--%2d-|-%2d--%2d-|-%2d--%2d-|-%2d  %2d | ",
         nm[9],nm[61],nm[10],nm[62],nm[12],nm[64],nm[11],nm[63]);
  printf("%4d%3d%3d%3d%3d%3d%3d%3d",
         nm[40],nm[39],nm[37],nm[38],nm[60],nm[59],nm[57],nm[58]);
  printf("%5d%3d%3d%3d%3d%3d%3d%3d\n",
         nm[33],nm[34],nm[36],nm[35],nm[50],nm[49],nm[51],nm[52]);
  printf("   %2d  %2d   %2d  %2d   %2d  %2d   %2d  %2d ",
         nm[25],nm[45],nm[26],nm[46],nm[28],nm[48],nm[27],nm[47]);
  printf("%4d%3d%3d%3d%3d%3d%3d%3d",
         nm[48],nm[47],nm[45],nm[46],nm[52],nm[51],nm[49],nm[50]);
  printf("%5d%3d%3d%3d%3d%3d%3d%3d\n",
         nm[41],nm[42],nm[44],nm[43],nm[58],nm[57],nm[59],nm[60]);
  printf("     %2d |     %2d |     %2d |     %2d | ",
         nm[57],nm[58],nm[60],nm[59]);
  printf("%4d%3d%3d%3d%3d%3d%3d%3d",
```

```
            nm[44],nm[43],nm[41],nm[42],nm[56],nm[55],nm[53],nm[54]);
    printf("%5d%3d%3d%3d%3d%3d%3d%3d\n",
            nm[45],nm[46],nm[48],nm[47],nm[62],nm[61],nm[63],nm[64]);
    printf("      %2d-------%2d-------%2d-------%2d\n",
            nm[41],nm[42],nm[44],nm[43]);
    printf("\n");
}
//
```

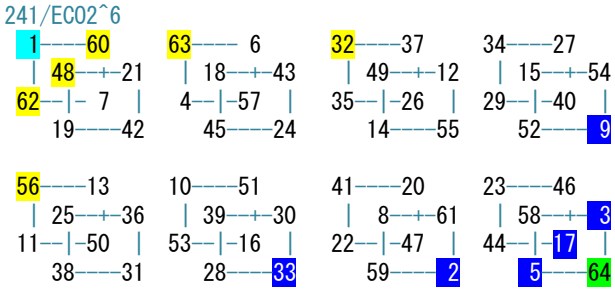
３．実行結果は，次の通りである。

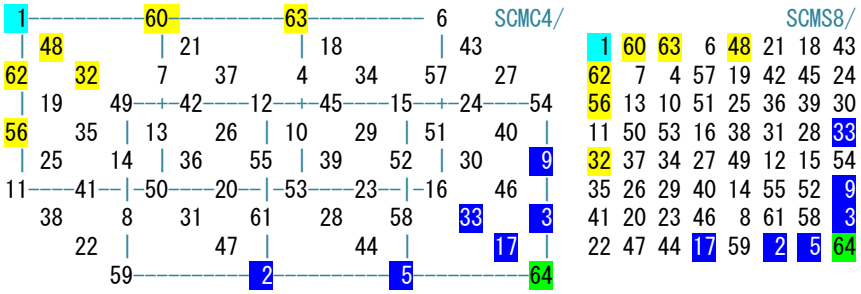
** MCCMS8/ を解いて幾つもの種類の魔方陣を同時に構成したリスト（原始解：抜粋）**

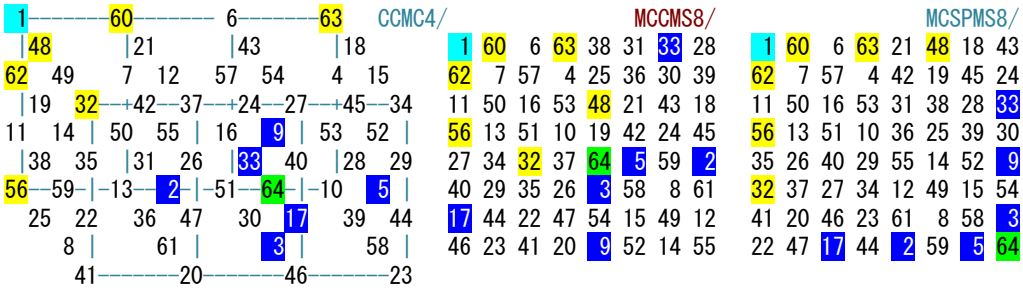




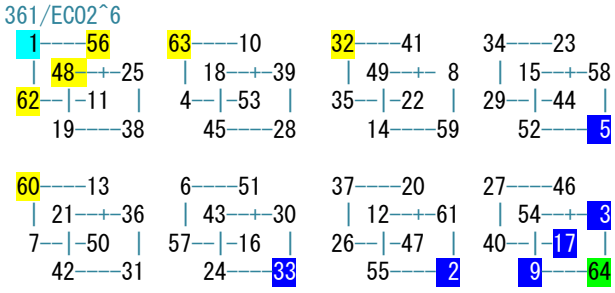
241/EC02^6

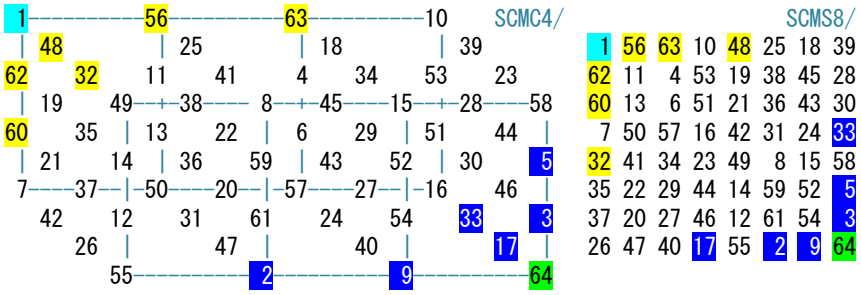


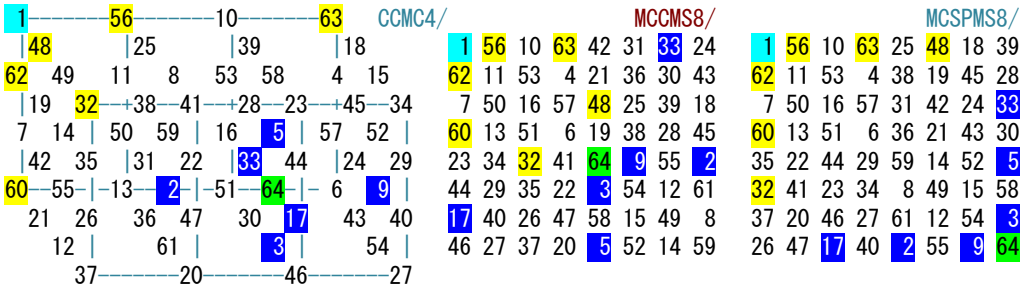




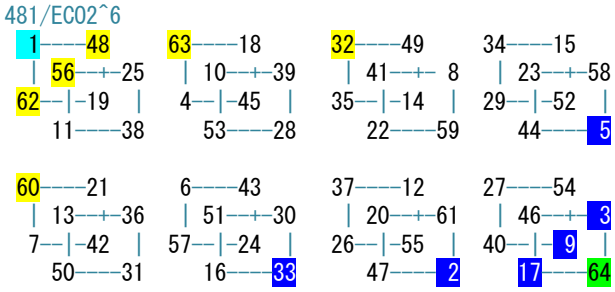
361/EC02^6

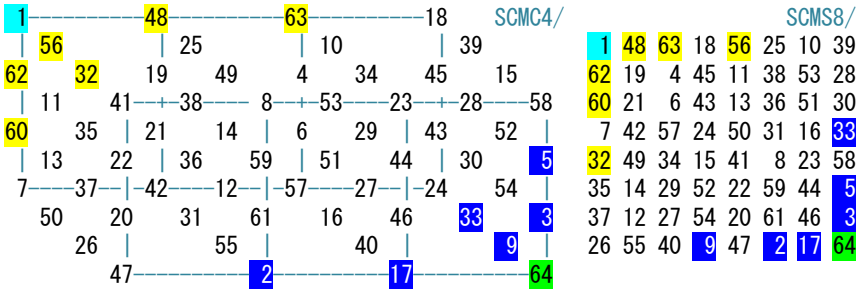


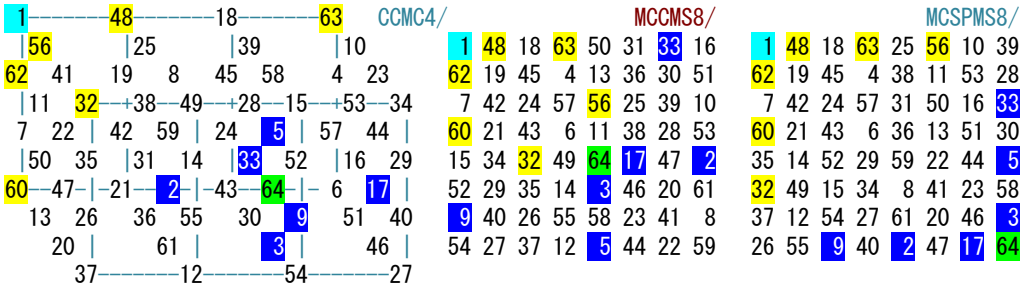




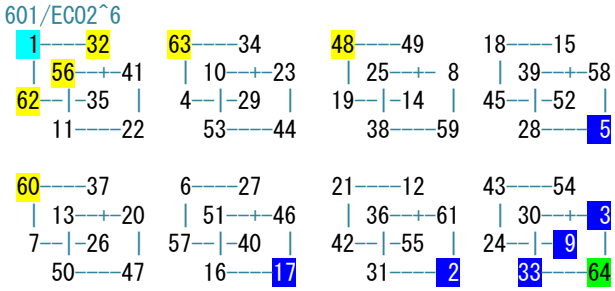
481/ECO2^6

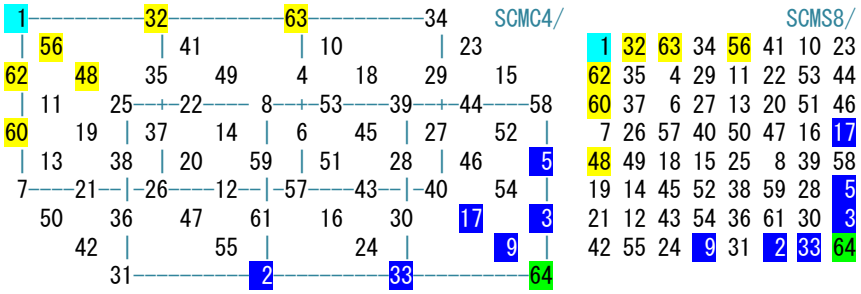


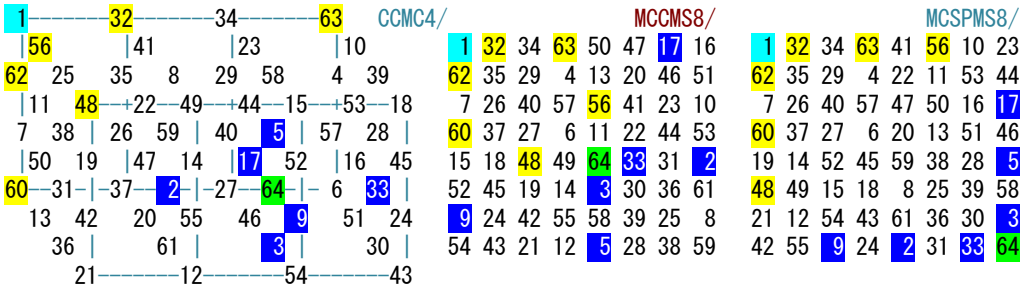




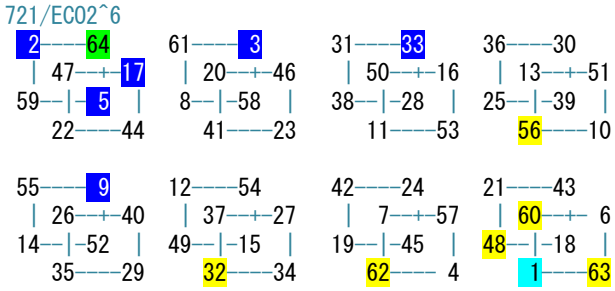
601/ECO2^6

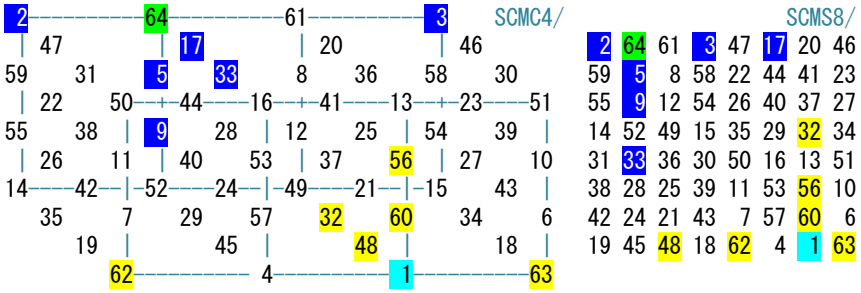


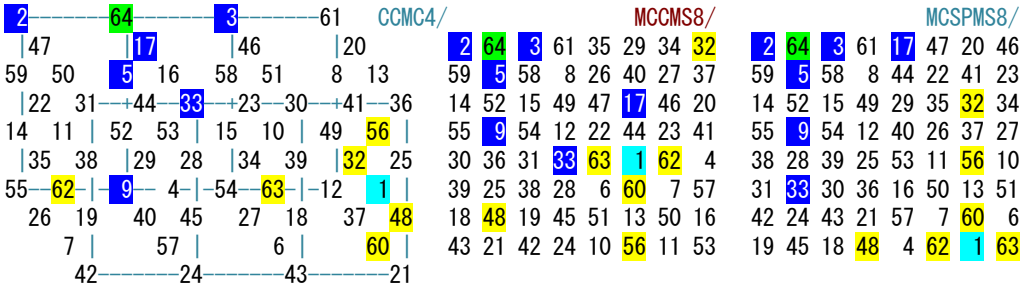




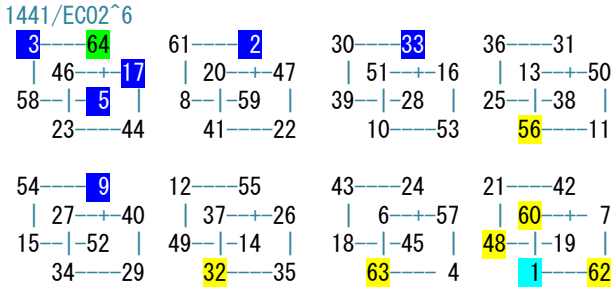
721/ECO2^6

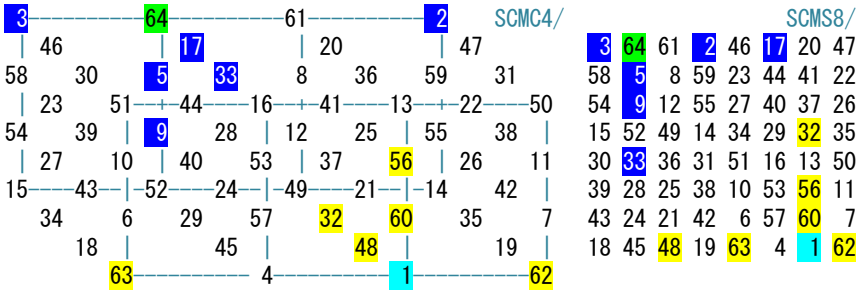


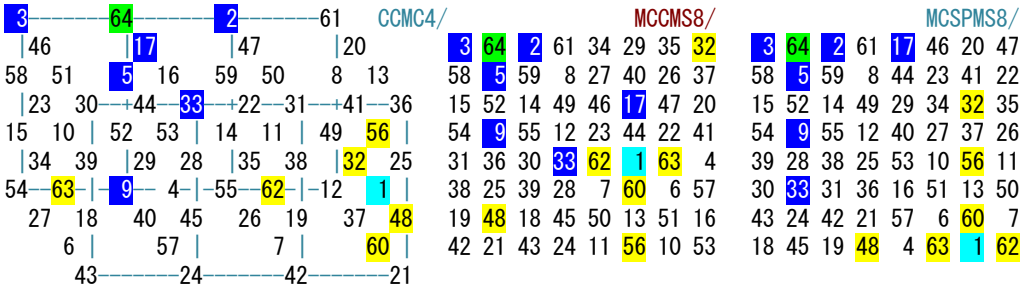




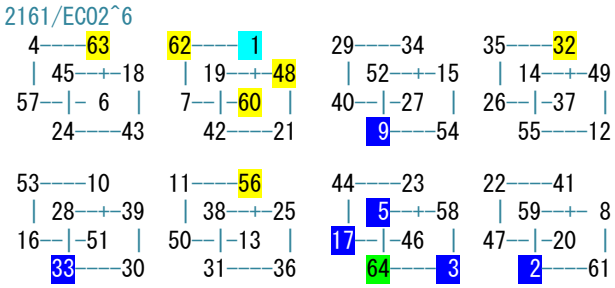
1441/ECO2^6

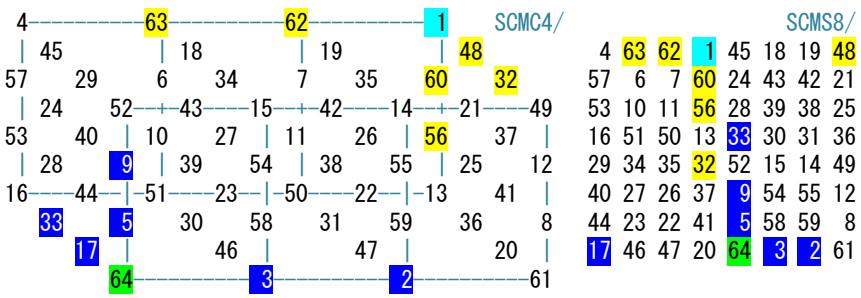


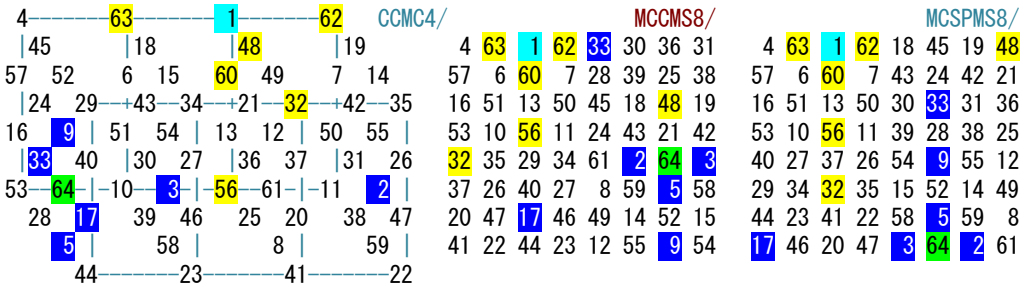




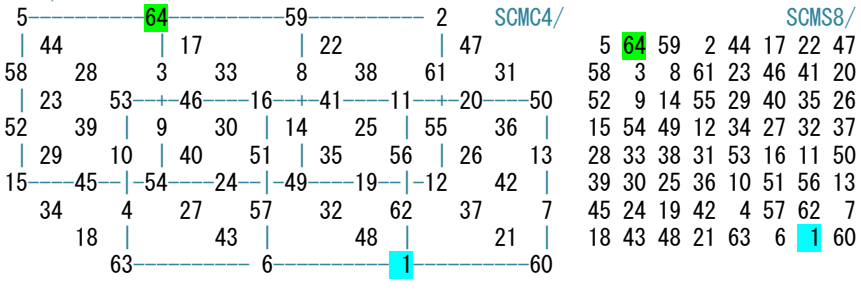
2161/ECO2^6

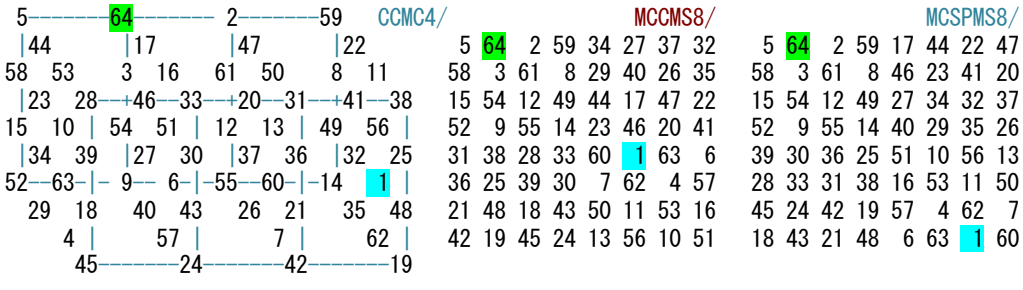






2881/ECO2^6





3601/EC02^6

```
 6----------63----------60----------[1]     SCMC4/                    SCMS8/
 | 43         | 18         | 21         | 48          6 63 60 [1] 43 18 21 48
57    27     4    34     7    37    62    32        57  4  7 62 24 45 42 19
 | 24    54--+-45----15--+-42----12--+-19----49     51 10 13 56 30 39 36 25
51    40   | 10    29   | 13    26   | 56    35   |  16 53 50 11 33 28 31 38
 | 30     9  | 39    52  | 36    55  | 25    14     27 34 37 32 54 15 12 49
16----46--|-53----23--|-50----20--|-11    41   |    40 29 26 35  9 52 55 14
   33     3    28    58    31    61    38     8     46 23 20 41  3 58 61  8
      17  |       44  |       47  |       22  |     17 44 47 22 [64] 5  2 59
          [64]--------- 5--------- 2---------59
```

```
 6-------63-------[1]-------60    CCMC4/                MCCMS8/                MCSPMS8/
 |43       |18       |48       |21        6 63 [1] 60 33 28 38 31    6 63 [1] 60 18 43 21 48
57  54    4  15   62  49    7  12     57  4 62  7 30 39 25 36    57  4 62  7 45 24 42 19
 |24  27--+45--34--+19--32--+42--37    16 53 11 50 43 18 48 21    16 53 11 50 28 33 31 38
16   9 | 53  52 | 11  14 | 50  55 |    51 10 56 13 24 45 19 42    51 10 56 13 39 30 36 25
 |33  40  |28  29  |38  35  |31  26     32 37 27 34 59  2 [64] 5    40 29 35 26 52  9 55 14
51--[64]-|-10-- 5-|-56--59-|-13   2 |   35 26 40 29  8 61  3 58    27 34 32 37 15 54 12 49
  30  17   39  44   25  22   36  47     22 47 17 44 49 12 54 15    46 23 41 20 58  3 61  8
     3 |      58 |       8 |      61 |   41 20 46 23 14 55  9 52    17 44 22 47  5 [64] 2 59
       46-------23-------41-------20
```

4321/EC02^6

```
 7----------62----------60----------[1]     SCMC4/                    SCMS8/
 | 42         | 19         | 21         | 48          7 62 60 [1] 42 19 21 48
57    26     4    35     6    37    63    32        57  4  6 63 24 45 43 18
 | 24    55--+-45----14--+-43----12--+-18----49     50 11 13 56 31 38 36 25
50    40   | 11    29   | 13    27   | 56    34   |  16 53 51 10 33 28 30 39
 | 31     9  | 38    52  | 36    54  | 25    15     26 35 37 32 55 14 12 49
16----47--|-53----22--|-51----20--|-10    41   |    40 29 27 34  9 52 54 15
   33     2    28    59    30    61    39     8     47 22 20 41  2 59 61  8
      17  |       44  |       46  |       23  |     17 44 46 23 [64] 5  3 58
          [64]--------- 5--------- 3---------58
```

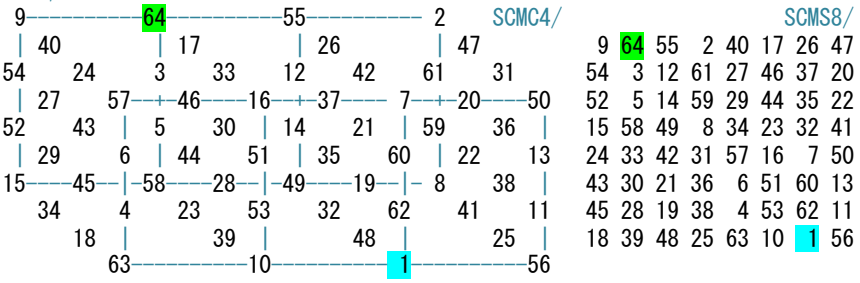
```
 7-------62-------[1]-------60    CCMC4/                MCCMS8/                MCSPMS8/
 |42       |19       |48       |21        7 62 [1] 60 33 28 39 30    7 62 [1] 60 19 42 21 48
57  55    4  14   63  49    6  12     57  4 63  6 31 38 25 36    57  4 63  6 45 24 43 18
 |24  26--+45--35--+18--32--+43--37    16 53 10 51 42 19 48 21    16 53 10 51 28 33 30 39
16   9 | 53  52 | 10  15 | 51  54 |    50 11 56 13 24 45 18 43    50 11 56 13 38 31 36 25
 |33  40  |28  29  |39  34  |30  27     32 37 26 35 58  3 [64] 5    40 29 34 27 52  9 54 15
50--[64]-|-11-- 5-|-56--58-|-13   3 |   34 27 40 29  8 61  2 59    26 35 32 37 14 55 12 49
  31  17   38  44   25  23   36  46     23 46 17 44 49 12 55 14    47 22 41 20 59  2 61  8
     2 |      59 |       8 |      61 |   41 20 47 22 15 54  9 52    17 44 23 46  5 [64] 3 58
       47-------22-------41-------20
```

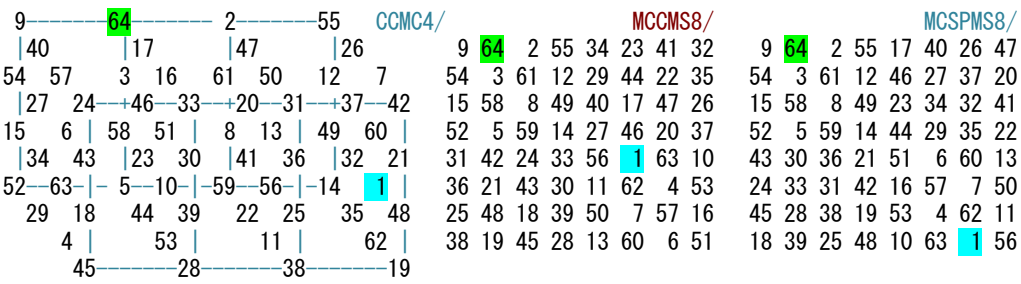
5041/EC02^6

```
 8----------61----------59---------- 2     SCMC4/                    SCMS8/
 | 41         | 20         | 22         | 47          8 61 59  2 41 20 22 47
58    25     3    36     5    38   [64]   31        58  3  5 [64] 23 46 44 17
 | 23    56--+-46----13--+-44----11--+-17----50     49 12 14 55 32 37 35 26
49    39   | 12    30   | 14    28   | 55    33   |  15 54 52  9 34 27 29 40
 | 32    10   | 37    51   | 35    53   | 26    16     25 36 38 31 56 13 11 50
15----48--|-54----21--|-52----19--|- 9    42   |    39 30 28 33 10 51 53 16
   34   [1]    27    60    29    62    40     7     48 21 19 42 [1] 60 62  7
      18  |       43  |       45  |       24  |     18 43 45 24 63  6  4 57
          63--------- 6--------- 4---------57
```

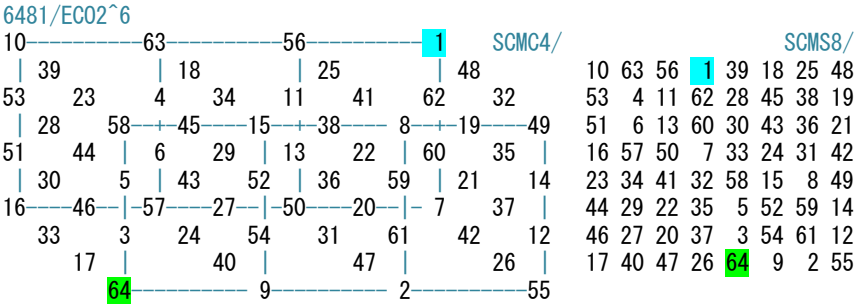
```
 8-------61-------- 2-------59    CCMC4/                MCCMS8/                MCSPMS8/
 |41       |20       |47       |22        8 61  2 59 34 27 40 29    8 61  2 59 20 41 22 47
58  56    3  13  [64] 50    5  11     58  3 [64] 5 32 37 26 35    58  3 [64] 5 46 23 44 17
 |23  25--+46--36--+17--31--+44--38    15 54  9 52 41 20 47 22    15 54  9 52 27 34 29 40
15  10 | 54  51 |  9  16 | 52  53 |    49 12 55 14 23 46 17 44    49 12 55 14 37 32 35 26
 |34  39  |27  30  |40  33  |29  28     31 38 25 36 57  4 63  6    39 30 33 28 51 10 53 16
49--63-|-12-- 6-|-55--57-|-14   4 |   33 28 39 30  7 62 [1] 60    25 36 31 38 13 56 11 50
  32  18   37  43   26  24   35  45     24 45 18 43 50 11 56 13    48 21 42 19 60 [1] 62  7
    [1] |      60 |       7 |      62 |   42 19 48 21 16 53 10 51    18 43 24 45  6 63  4 57
       48-------21-------42-------19
```

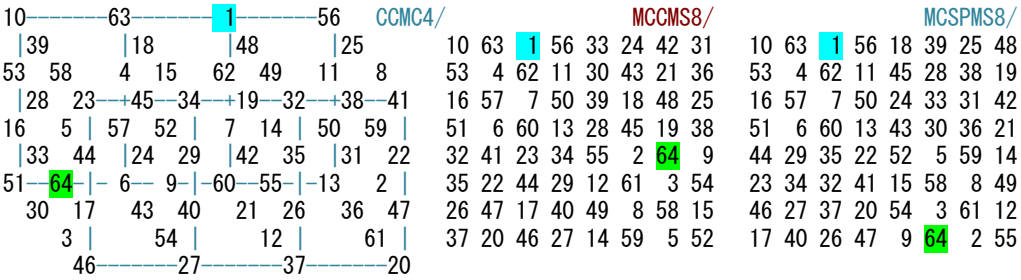
5761/EC02^6



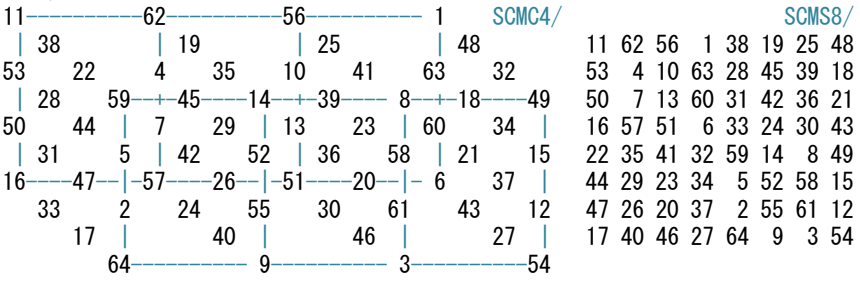


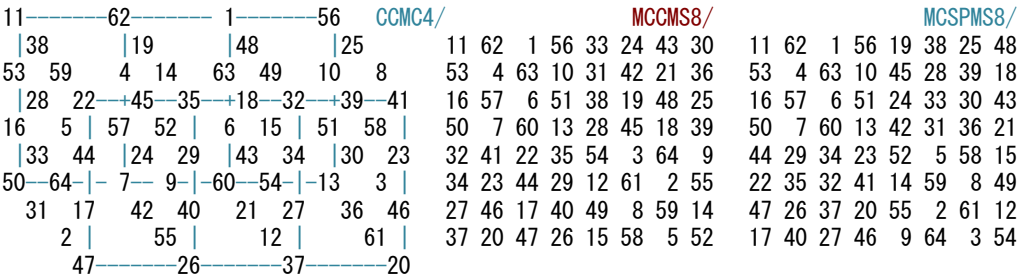
6481/EC02^6



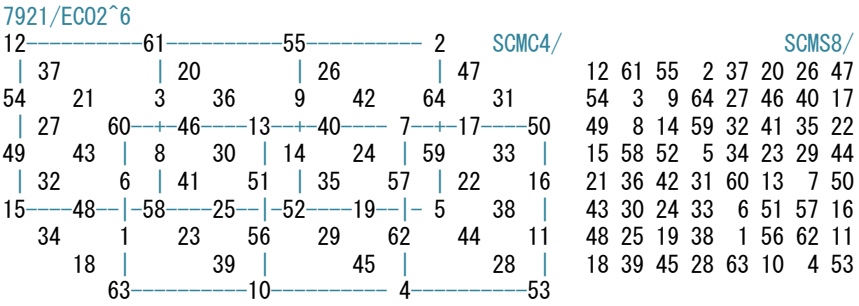


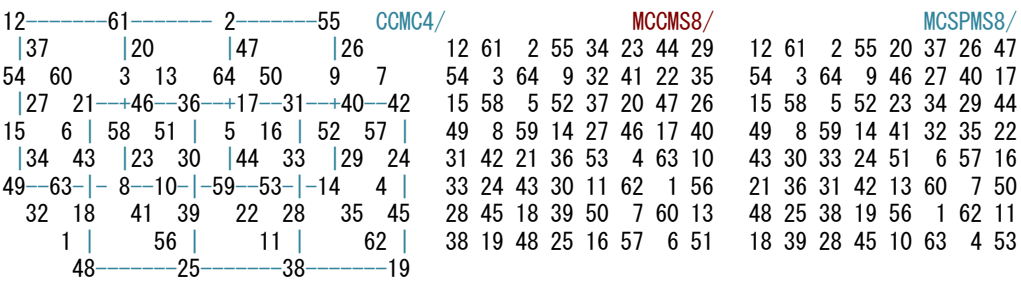
7201/EC02^6



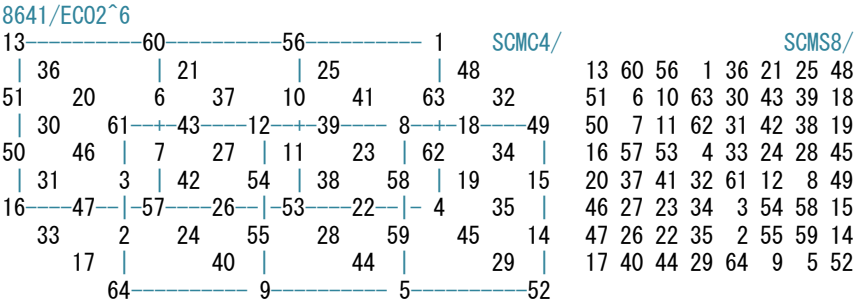


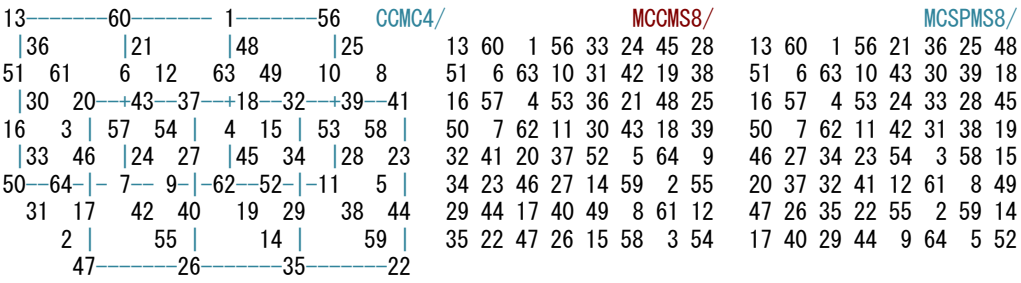
7921/ECO2^6



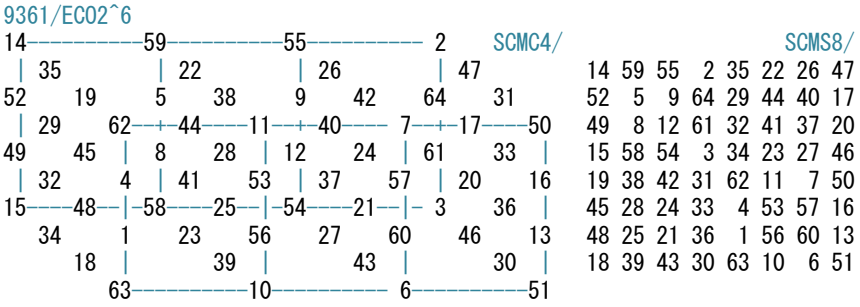


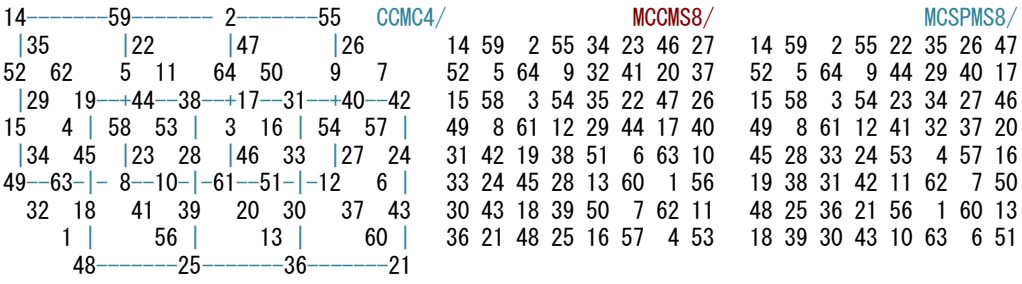
8641/ECO2^6



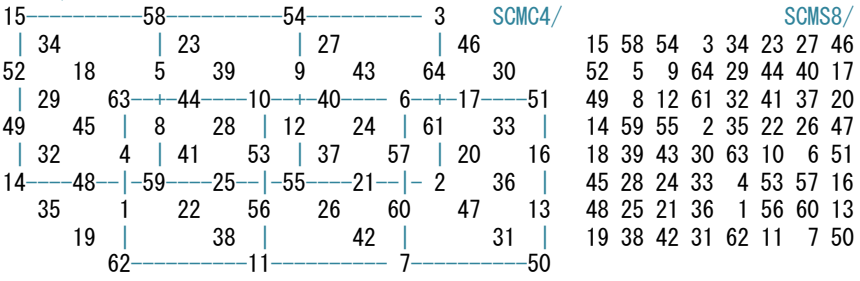


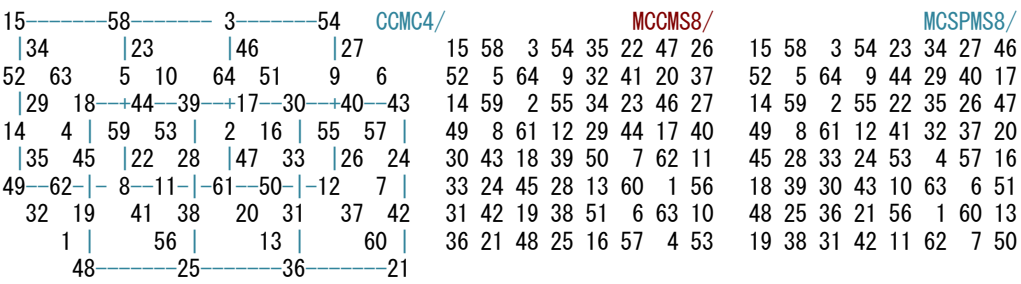
9361/ECO2^6



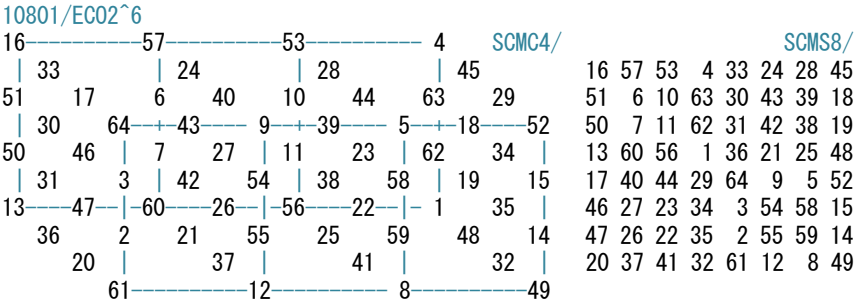


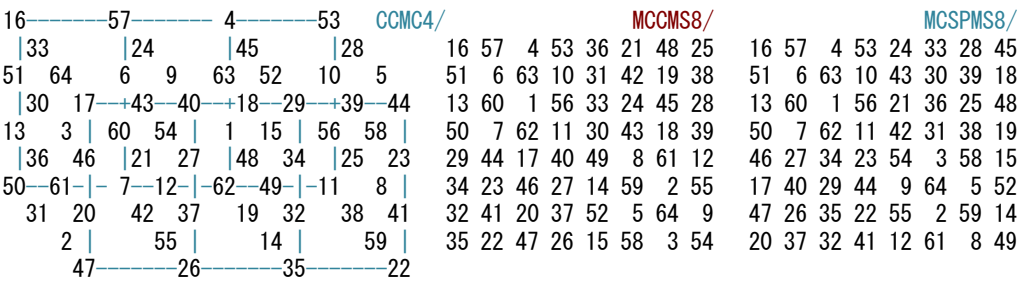
10081/EC02^6



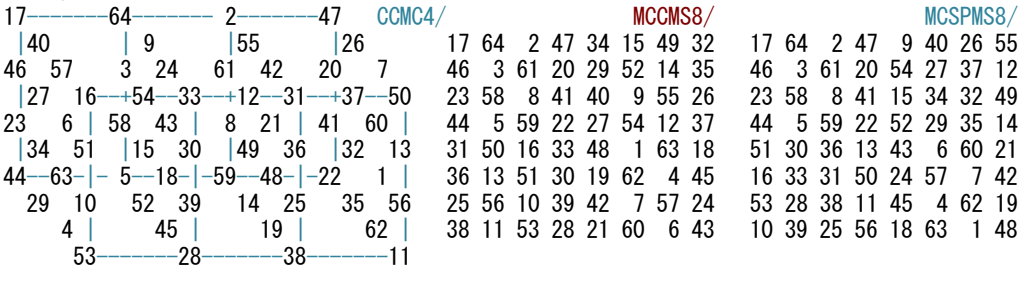


10801/EC02^6

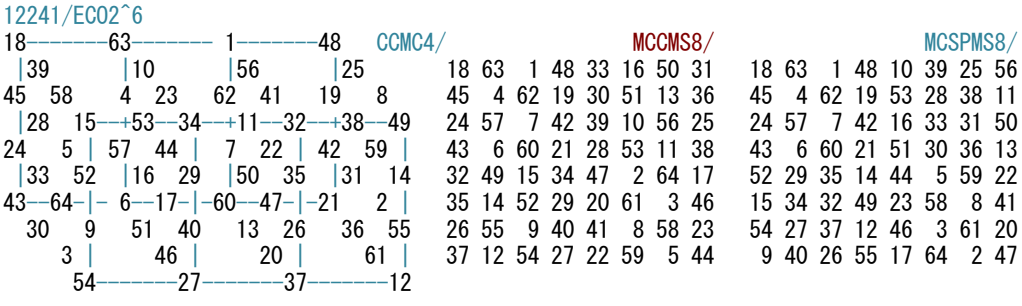




11521/EC02^6



12241/EC02^6



12961/ECO2^6

```
19--------62-------- 1--------48    CCMC4/                  MCCMS8/                  MCSPMS8/
 |38       |11       |56       |25       19 62  1 48 33 16 51 30   19 62  1 48 11 38 25 56
45  59     4  22    63  41    18   8      45  4 63 18 31 50 13 36   45  4 63 18 53 28 39 10
 |28  14--+53--35--+10--32--+39--49      24 57  6 43 38 11 56 25   24 57  6 43 16 33 30 51
24   5 | 57  44 |  6  23 | 43  58 |      42  7 60 21 28 53 10 39   42  7 60 21 50 31 36 13
 |33  52  |16  29  |51  34  |30  15      32 49 14 35 46  3 64 17   52 29 34 15 44  5 58 23
42--64-|- 7--17-|-60--46-|-21   3 |      34 15 52 29 20 61  2 47   14 35 32 49 22 59  8 41
  31   9   50  40   13  27   36  54      27 54  9 40 41  8 59 22   55 26 37 12 47  2 61 20
     2 |     47 |     20 |     61 |      37 12 55 26 23 58  5 44    9 40 27 54 17 64  3 46
       55--------26--------37--------12
```

13681/ECO2^6

```
20--------61-------- 2--------47    CCMC4/                  MCCMS8/                  MCSPMS8/
 |37       |12       |55       |26       20 61  2 47 34 15 52 29   20 61  2 47 12 37 26 55
46  60     3  21    64  42    17   7      46  3 64 17 32 49 14 35   46  3 64 17 54 27 40  9
 |27  13--+54--36--+ 9--31--+40--50      23 58  5 44 37 12 55 26   23 58  5 44 15 34 29 52
23   6 | 58  43 |  5  24 | 44  57 |      41  8 59 22 27 54  9 40   41  8 59 22 49 32 35 14
 |34  51  |15  30  |52  33  |29  16      31 50 13 36 45  4 63 18   51 30 33 16 43  6 57 24
41--63-|- 8--18-|-59--45-|-22   4 |      33 16 51 30 19 62  1 48   13 36 31 50 21 60  7 42
  32  10   49  39   14  28   35  53      28 53 10 39 42  7 60 21   56 25 38 11 48  1 62 19
     1 |     48 |     19 |     62 |      38 11 56 25 24 57  6 43   10 39 28 53 18 63  4 45
       56--------25--------38--------11
```

14401/ECO2^6

```
21--------60-------- 1--------48    CCMC4/                  MCCMS8/                  MCSPMS8/
 |36       |13       |56       |25       21 60  1 48 33 16 53 28   21 60  1 48 13 36 25 56
43  61     6  20    63  41    18   8      43  6 63 18 31 50 11 38   43  6 63 18 51 30 39 10
 |30  12--+51--37--+10--32--+39--49      24 57  4 45 36 13 56 25   24 57  4 45 16 33 28 53
24   3 | 57  46 |  4  23 | 45  58 |      42  7 62 19 30 51 10 39   42  7 62 19 50 31 38 11
 |33  54  |16  27  |53  34  |28  15      32 49 12 37 44  5 64 17   54 27 34 15 46  3 58 23
42--64-|- 7--17-|-62--44-|-19   5 |      34 15 54 27 22 59  2 47   12 37 32 49 20 61  8 41
  31   9   50  40   11  29   38  52      29 52  9 40 41  8 61 20   55 26 35 14 47  2 59 22
     2 |     47 |     22 |     59 |      35 14 55 26 23 58  3 46    9 40 29 52 17 64  5 44
       55--------26--------35--------14
```

15121/ECO2^6

```
22--------59-------- 2--------47    CCMC4/                  MCCMS8/                  MCSPMS8/
 |35       |14       |55       |26       22 59  2 47 34 15 54 27   22 59  2 47 14 35 26 55
44  62     5  19    64  42    17   7      44  5 64 17 32 49 12 37   44  5 64 17 52 29 40  9
 |29  11--+52--38--+ 9--31--+40--50      23 58  3 46 35 14 55 26   23 58  3 46 15 34 27 54
23   4 | 58  45 |  3  24 | 46  57 |      41  8 61 20 29 52  9 40   41  8 61 20 49 32 37 12
 |34  53  |15  28  |54  33  |27  16      31 50 11 38 43  6 63 18   53 28 33 16 45  4 57 24
41--63-|- 8--18-|-61--43-|-20   6 |      33 16 53 28 21 60  1 48   11 38 31 50 19 62  7 42
  32  10   49  39   12  30   37  51      30 51 10 39 42  7 62 19   56 25 36 13 48  1 60 21
     1 |     48 |     21 |     60 |      36 13 56 25 24 57  4 45   10 39 30 51 18 63  6 43
       56--------25--------36--------13
```

15841/ECO2^6

```
23--------58-------- 3--------46    CCMC4/                  MCCMS8/                  MCSPMS8/
 |34       |15       |54       |27       23 58  3 46 35 14 55 26   23 58  3 46 15 34 27 54
44  63     5  18    64  43    17   6      44  5 64 17 32 49 12 37   44  5 64 17 52 29 40  9
 |29  10--+52--39--+ 9--30--+40--51      22 59  2 47 34 15 54 27   22 59  2 47 14 35 26 55
22   4 | 59  45 |  2  24 | 47  57 |      41  8 61 20 29 52  9 40   41  8 61 20 49 32 37 12
 |35  53  |14  28  |55  33  |26  16      30 51 10 39 42  7 62 19   53 28 33 16 45  4 57 24
41--62-|- 8--19-|-61--42-|-20   7 |      33 16 53 28 21 60  1 48   10 39 30 51 18 63  6 43
  32  11   49  38   12  31   37  50      31 50 11 38 43  6 63 18   56 25 36 13 48  1 60 21
     1 |     48 |     21 |     60 |      36 13 56 25 24 57  4 45   11 38 31 50 19 62  7 42
       56--------25--------36--------13
```

16561/ECO2^6

```
24--------57-------- 4--------45    CCMC4/                  MCCMS8/                  MCSPMS8/
 |33       |16       |53       |28       24 57  4 45 36 13 56 25   24 57  4 45 16 33 28 53
43  64     6  17    63  44    18   5      43  6 63 18 31 50 11 38   43  6 63 18 51 30 39 10
 |30   9--+51--40--+10--29--+39--52      21 60  1 48 33 16 53 28   21 60  1 48 13 36 25 56
21   3 | 60  46 |  1  23 | 48  58 |      42  7 62 19 30 51 10 39   42  7 62 19 50 31 38 11
 |36  54  |13  27  |56  34  |25  15      29 52  9 40 41  8 61 20   54 27 34 15 46  3 58 23
42--61-|- 7--20-|-62--41-|-19   8 |      34 15 54 27 22 59  2 47    9 40 29 52 17 64  5 44
  31  12   50  37   11  32   38  49      32 49 12 37 44  5 64 17   55 26 35 14 47  2 59 22
     2 |     47 |     22 |     59 |      35 14 55 26 23 58  3 46   12 37 32 49 20 61  8 41
       55--------26--------35--------14
```

17281/ECO2^6

```
25--------56-------- 1--------48    CCMC4/                  MCCMS8/                  MCSPMS8/
  |36        |13        |60        |21        25 56  1 48 33 16 57 24   25 56  1 48 13 36 21 60
39  61    10  20    63  37    18  12          39 10 63 18 31 50  7 42   39 10 63 18 51 30 43  6
  |30     8--+51--41--+ 6--32--+43--49       28 53  4 45 36 13 60 21   28 53  4 45 16 33 24 57
28    3 | 53  46 |  4  27 | 45  54 |          38 11 62 19 30 51  6 43   38 11 62 19 50 31 42  7
  |33  58   |16  23   |57  34   |24  15       32 49  8 41 40  9 64 17   58 23 34 15 46  3 54 27
38--64--|--11--17--|--62--40--|--19   9 |     34 15 58 23 26 55  2 47    8 41 32 49 20 61 12 37
  31    5    50  44     7  29    42  52       29 52  5 44 37 12 61 20   59 22 35 14 47  2 55 26
      2 |       47 |       26 |       55 |    35 14 59 22 27 54  3 46    5 44 29 52 17 64  9 40
        59--------22--------35--------14
```

18001/ECO2^6

```
26--------55-------- 2--------47    CCMC4/                  MCCMS8/                  MCSPMS8/
  |35        |14        |59        |22        26 55  2 47 34 15 58 23   26 55  2 47 14 35 22 59
40  62     9  19    64  38    17  11          40  9 64 17 32 49  8 41   40  9 64 17 52 29 44  5
  |29     7--+52--42--+ 5--31--+44--50       27 54  3 46 35 14 59 22   27 54  3 46 15 34 23 58
27    4 | 54  45 |  3  28 | 46  53 |          37 12 61 20 29 52  5 44   37 12 61 20 49 32 41  8
  |34  57   |15  24   |58  33   |23  16       31 50  7 42 39 10 63 18   57 24 33 16 45  4 53 28
37--63--|--12--18--|--61--39--|--20  10 |     33 16 57 24 25 56  1 48    7 42 31 50 19 62 11 38
  32    6    49  43     8  30    41  51       30 51  6 43 38 11 62 19   60 21 36 13 48  1 56 25
      1 |       48 |       25 |       56 |    36 13 60 21 28 53  4 45    6 43 30 51 18 63 10 39
        60--------21--------36--------13
```

18721/ECO2^6

```
27--------54-------- 3--------46    CCMC4/                  MCCMS8/                  MCSPMS8/
  |34        |15        |58        |23        27 54  3 46 35 14 59 22   27 54  3 46 15 34 23 58
40  63     9  18    64  39    17  10          40  9 64 17 32 49  8 41   40  9 64 17 52 29 44  5
  |29     6--+52--43--+ 5--30--+44--51       26 55  2 47 34 15 58 23   26 55  2 47 14 35 22 59
26    4 | 55  45 |  2  28 | 47  53 |          37 12 61 20 29 52  5 44   37 12 61 20 49 32 41  8
  |35  57   |14  24   |59  33   |22  16       30 51  6 43 38 11 62 19   57 24 33 16 45  4 53 28
37--62--|--12--19--|--61--38--|--20  11 |     33 16 57 24 25 56  1 48    6 43 30 51 18 63 10 39
  32    7    49  42     8  31    41  50       31 50  7 42 39 10 63 18   60 21 36 13 48  1 56 25
      1 |       48 |       25 |       56 |    36 13 60 21 28 53  4 45    7 42 31 50 19 62 11 38
        60--------21--------36--------13
```

19441/ECO2^6

```
28--------53-------- 4--------45    CCMC4/                  MCCMS8/                  MCSPMS8/
  |33        |16        |57        |24        28 53  4 45 36 13 60 21   28 53  4 45 16 33 24 57
39  64    10  17    63  40    18   9          39 10 63 18 31 50  7 42   39 10 63 18 51 30 43  6
  |30     5--+51--44--+ 6--29--+43--52       25 56  1 48 33 16 57 24   25 56  1 48 13 36 21 60
25    3 | 56  46 |  1  27 | 48  54 |          38 11 62 19 30 51  6 43   38 11 62 19 50 31 42  7
  |36  58   |13  23   |60  34   |21  15       29 52  5 44 37 12 61 20   58 23 34 15 46  3 54 27
38--61--|--11--20--|--62--37--|--19  12 |     34 15 58 23 26 55  2 47    5 44 29 52 17 64  9 40
  31    8    50  41     7  32    42  49       32 49  8 41 40  9 64 17   59 22 35 14 47  2 55 26
      2 |       47 |       26 |       55 |    35 14 59 22 27 54  3 46    8 41 32 49 20 61 12 37
        59--------22--------35--------14
```

20161/ECO2^6

```
29--------52-------- 5--------44    CCMC4/                  MCCMS8/                  MCSPMS8/
  |34        |15        |58        |23        29 52  5 44 37 12 61 20   29 52  5 44 15 34 23 58
40  63     9  18    64  39    17  10          40  9 64 17 32 49  8 41   40  9 64 17 54 27 46  3
  |27     4--+54--45--+ 3--28--+46--53       26 55  2 47 34 15 58 23   26 55  2 47 12 37 20 61
26    6 | 55  43 |  2  30 | 47  51 |          35 14 59 22 27 54  3 46   35 14 59 22 49 32 41  8
  |37  57   |12  24   |61  33   |20  16       28 53  4 45 36 13 60 21   57 24 33 16 43  6 51 30
35--60--|--14--21--|--59--36--|--22  13 |     33 16 57 24 25 56  1 48    4 45 28 53 18 63 10 39
  32    7    49  42     8  31    41  50       31 50  7 42 39 10 63 18   62 19 38 11 48  1 56 25
      1 |       48 |       25 |       56 |    38 11 62 19 30 51  6 43    7 42 31 50 21 60 13 36
        62--------19--------38--------11
```

20881/ECO2^6

```
30--------51-------- 6--------43    CCMC4/                  MCCMS8/                  MCSPMS8/
  |33        |16        |57        |24        30 51  6 43 38 11 62 19   30 51  6 43 16 33 24 57
39  64    10  17    63  40    18   9          39 10 63 18 31 50  7 42   39 10 63 18 53 28 45  4
  |28     3--+53--46--+ 4--27--+45--54       25 56  1 48 33 16 57 24   25 56  1 48 11 38 19 62
25    5 | 56  44 |  1  29 | 48  52 |          36 13 60 21 28 53  4 45   36 13 60 21 50 31 42  7
  |38  58   |11  23   |62  34   |19  15       27 54  3 46 35 14 59 22   58 23 34 15 44  5 52 29
36--59--|--13--22--|--60--35--|--21  14 |     34 15 58 23 26 55  2 47    3 46 27 54 17 64  9 40
  31    8    50  41     7  32    42  49       32 49  8 41 40  9 64 17   61 20 37 12 47  2 55 26
      2 |       47 |       26 |       55 |    37 12 61 20 29 52  5 44    8 41 32 49 22 59 14 35
        61--------20--------37--------12
```

21601/ECO2^6

```
31-------50-------- 7--------42
 |33        |16        |57        |24
38  64    11   17    62   40    19    9
 |28     2--+53--47--+ 4--26--+45--55
25    5 | 56   44 |   1   29 | 48   52 |
 |39   59   |10   22   |63   35   |18   14
36--58--|-13--23--|-60--34--|-21   15 |
  30    8    51   41      6   32    43   49
     3 |       46 |       27 |       54 |
       61--------20--------37--------12
```

CCMC4/

```
31 50  7 42 39 10 63 18
38 11 62 19 30 51  6 43
25 56  1 48 33 16 57 24
36 13 60 21 28 53  4 45
26 55  2 47 34 15 58 23
35 14 59 22 27 54  3 46
32 49  8 41 40  9 64 17
37 12 61 20 29 52  5 44
```

MCCMS8/

```
31 50  7 42 16 33 24 57
38 11 62 19 53 28 45  4
25 56  1 48 10 39 18 63
36 13 60 21 51 30 43  6
59 22 35 14 44  5 52 29
 2 47 26 55 17 64  9 40
61 20 37 12 46  3 54 27
 8 41 32 49 23 58 15 34
```

MCSPMS8/

22321/ECO2^6

```
32--------49-------- 8--------41
 |34        |15        |58        |23
37  63    12   18    61   39    20   10
 |27     1--+54--48--+ 3--25--+46--56
26    6 | 55   43 |   2   30 | 47   51 |
 |40   60   | 9   21   |64   36   |17   13
35--57--|-14--24--|-59--33--|-22   16 |
  29    7    52   42      5   31    44   50
     4 |       45 |       28 |       53 |
       62--------19--------38--------11
```

CCMC4/

```
32 49  8 41 40  9 64 17
37 12 61 20 29 52  5 44
26 55  2 47 34 15 58 23
35 14 59 22 27 54  3 46
25 56  1 48 33 16 57 24
36 13 60 21 28 53  4 45
31 50  7 42 39 10 63 18
38 11 62 19 30 51  6 43
```

MCCMS8/

```
32 49  8 41 15 34 23 58
37 12 61 20 54 27 46  3
26 55  2 47  9 40 17 64
35 14 59 22 52 29 44  5
60 21 36 13 43  6 51 30
 1 48 25 56 18 63 10 39
62 19 38 11 45  4 53 28
 7 42 31 50 24 57 16 33
```

MCSPMS8/

23041/ECO2^6

```
33--------64-------- 2--------31
 |24        | 9        |55        |42
30  57    3   40    61   26    36    7
 |43   16--+54--17--+12--47--+21--50
39    6 | 58   27 |   8   37 | 25   60 |
 |18   51   |15   46   |49   20   |48   13
28--63--|- 5--34--|-59--32--|-38    1 |
  45   10    52   23    14   41    19   56
     4 |       29 |       35 |       62 |
       53--------44--------22--------11
```

CCMC4/

```
33 64  2 31 18 15 49 48
30  3 61 36 45 52 14 19
39 58  8 25 24  9 55 42
28  5 59 38 43 54 12 21
47 50 16 17 32  1 63 34
20 13 51 46 35 62  4 29
41 56 10 23 26  7 57 40
22 11 53 44 37 60  6 27
```

MCCMS8/

```
33 64  2 31  9 24 42 55
30  3 61 36 54 43 21 12
39 58  8 25 15 18 48 49
28  5 59 38 52 45 19 14
51 46 20 13 27  6 60 37
16 17 47 50 40 57  7 26
53 44 22 11 29  4 62 35
10 23 41 56 34 63  1 32
```

MCSPMS8/

23761/MCCMS8

```
34 63  1 32 17 16 50 47
29  4 62 35 46 51 13 20
40 57  7 26 23 10 56 41
27  6 60 37 44 53 11 22
48 49 15 18 31  2 64 33
19 14 52 45 36 61  3 30
42 55  9 24 25  8 58 39
21 12 54 43 38 59  5 28
```

24481/

```
35 62  1 32 17 16 51 46
29  4 63 34 47 50 13 20
40 57  6 27 22 11 56 41
26  7 60 37 44 53 10 23
48 49 14 19 30  3 64 33
18 15 52 45 36 61  2 31
43 54  9 24 25  8 59 38
21 12 55 42 39 58  5 28
```

25201/

```
36 61  2 31 18 15 52 45
30  3 64 33 48 49 14 19
39 58  5 28 21 12 55 42
25  8 59 38 43 54  9 24
47 50 13 20 29  4 63 34
17 16 51 46 35 62  1 32
44 53 10 23 26  7 60 37
22 11 56 41 40 57  6 27
```

25921/

```
37 60  1 32 17 16 53 44
27  6 63 34 47 50 11 22
40 57  4 29 20 13 56 41
26  7 62 35 46 51 10 23
48 49 12 21 28  5 64 33
18 15 54 43 38 59  2 31
45 52  9 24 25  8 61 36
19 14 55 42 39 58  3 30
```

26641/

```
38 59  2 31 18 15 54 43
28  5 64 33 48 49 12 21
39 58  3 30 19 14 55 42
25  8 61 36 45 52  9 24
47 50 11 22 27  6 63 34
17 16 53 44 37 60  1 32
46 51 10 23 26  7 62 35
20 13 56 41 40 57  4 29
```

27361/

```
39 58  3 30 19 14 55 42
28  5 64 33 48 49 12 21
38 59  2 31 18 15 54 43
25  8 61 36 45 52  9 24
46 51 10 23 26  7 62 35
17 16 53 44 37 60  1 32
47 50 11 22 27  6 63 34
20 13 56 41 40 57  4 29
```

28081/

```
40 57  4 29 20 13 56 41
27  6 63 34 47 50 11 22
37 60  1 32 17 16 53 44
26  7 62 35 46 51 10 23
47 50 13 20 29  4 63 34
17 16 51 46 35 62  1 32
44 53 10 23 26  7 60 37
22 11 56 41 40 57  6 27
```

28801/

```
41 56  1 32 17 16 57 40
23 10 63 34 47 50  7 26
44 53  4 29 20 13 60 37
22 11 62 35 46 51  6 27
48 49  8 25 24  9 64 33
18 15 58 39 42 55  2 31
45 52  5 28 21 12 61 36
19 14 59 38 43 54  3 30
```

29521/

```
42 55  2 31 18 15 58 39
24  9 64 33 48 49  8 25
43 54  3 30 19 14 59 38
21 12 61 36 45 52  5 28
47 50  7 26 23 10 63 34
17 16 57 40 41 56  1 32
46 51  6 27 22 11 62 35
20 13 60 37 44 53  4 29
```

30241/

```
43 54  3 30 19 14 59 38
24  9 64 33 48 49  8 25
42 55  2 31 18 15 58 39
21 12 61 36 45 52  5 28
46 51  6 27 22 11 62 35
17 16 57 40 41 56  1 32
47 50  7 26 23 10 63 34
20 13 60 37 44 53  4 29
```

30961/

```
44 53  4 29 20 13 60 37
23 10 63 34 47 50  7 26
41 56  1 32 17 16 57 40
22 11 62 35 46 51  6 27
45 52  5 28 21 12 61 36
18 15 58 39 42 55  2 31
48 49  8 25 24  9 64 33
19 14 59 38 43 54  3 30
```

31681/

```
45 52  5 28 21 12 61 36
24  9 64 33 48 49  8 25
42 55  2 31 18 15 58 39
19 14 59 38 43 54  3 30
44 53  4 29 20 13 60 37
17 16 57 40 41 56  1 32
46 51  6 27 22 11 62 35
22 11 62 35 46 51  6 27
```

32401/

```
46 51  6 27 22 11 62 35
23 10 63 34 47 50  7 26
41 56  1 32 17 16 57 40
20 13 60 37 44 53  4 29
43 54  3 30 19 14 59 38
```

33121/

```
47 50  7 26 23 10 63 34
22 11 62 35 46 51  6 27
41 56  1 32 17 16 57 40
20 13 60 37 44 53  4 29
42 55  2 31 18 15 58 39
```

33841/

```
48 49  8 25 24  9 64 33
21 12 61 36 45 52  5 28
42 55  2 31 18 15 58 39
19 14 59 38 43 54  3 30
41 56  1 32 17 16 57 40
```

34561/

```
49 48  1 32  9 24 57 40
15 18 63 34 55 42  7 26
52 45  4 29 12 21 60 37
14 19 62 35 54 43  6 27
56 41  8 25 16 17 64 33
```

```
 18 15 58 39 42 55  2 31   19 14 59 38 43 54  3 30   20 13 60 37 44 53  4 29   10 23 58 39 50 47  2 31
 48 49  8 25 24  9 64 33   48 49  8 25 24  9 64 33   47 50  7 26 23 10 63 34   53 44  5 28 13 20 61 36
 21 12 61 36 45 52  5 28   21 12 61 36 45 52  5 28   22 11 62 35 46 51  6 27   11 22 59 38 51 46  3 30
                 35281/                    36001/                    36721/                    37441/
 50 47  2 31 10 23 58 39   51 46  3 30 11 22 59 38   52 45  4 29 12 21 60 37   53 44  5 28 13 20 61 36
 16 17 64 33 56 41  8 25   16 17 64 33 56 41  8 25   15 18 63 34 55 42  7 26   16 17 64 33 56 41  8 25
 51 46  3 30 11 22 59 38   50 47  2 31 10 23 58 39   49 48  1 32  9 24 57 40   50 47  2 31 10 23 58 39
 13 20 61 36 53 44  5 28   13 20 61 36 53 44  5 28   14 19 62 35 54 43  6 27   11 22 59 38 51 46  3 30
 55 42  7 26 15 18 63 34   54 43  6 27 14 19 62 35   53 44  5 28 13 20 61 36   52 45  4 29 12 21 60 37
  9 24 57 40 49 48  1 32    9 24 57 40 49 48  1 32   10 23 58 39 50 47  2 31    9 24 57 40 49 48  1 32
 54 43  6 27 14 19 62 35   55 42  7 26 15 18 63 34   56 41  8 25 16 17 64 33   55 42  7 26 15 18 63 34
 12 21 60 37 52 45  4 29   12 21 60 37 52 45  4 29   11 22 59 38 51 46  3 30   14 19 62 35 54 43  6 27
                 38161/                    38881/                    39601/                    40321/
 54 43  6 27 14 19 62 35   55 42  7 26 15 18 63 34   56 41  8 25 16 17 64 33   57 40  9 24 13 20 61 36
 15 18 63 34 55 42  7 26   14 19 62 35 54 43  6 27   13 20 61 36 53 44  5 28   16 17 64 33 60 37 12 21
 49 48  1 32  9 24 57 40   49 48  1 32  9 24 57 40   50 47  2 31 10 23 58 39   50 47  2 31  6 27 54 43
 12 21 60 37 52 45  4 29   12 21 60 37 52 45  4 29   11 22 59 38 51 46  3 30    7 26 55 42 51 46  3 30
 51 46  3 30 11 22 59 38   50 47  2 31 10 23 58 39   49 48  1 32  9 24 57 40   52 45  4 29  8 25 56 41
 10 23 58 39 50 47  2 31   11 22 59 38 51 46  3 30   12 21 60 37 52 45  4 29    5 28 53 44 49 48  1 32
 56 41  8 25 16 17 64 33   56 41  8 25 16 17 64 33   55 42  7 26 15 18 63 34   59 38 11 22 15 18 63 34
 13 20 61 36 53 44  5 28   13 20 61 36 53 44  5 28   14 19 62 35 54 43  6 27   14 19 62 35 58 39 10 23
                 41041/                    41761/                    42481/                    43201/
 58 39 10 23 14 19 62 35   59 38 11 22 15 18 63 34   60 37 12 21 16 17 64 33   61 36 13 20 15 18 63 34
 15 18 63 34 59 38 11 22   14 19 62 35 58 39 10 23   13 20 61 36 57 40  9 24   12 21 60 37 58 39 10 23
 49 48  1 32  5 28 53 44   49 48  1 32  5 28 53 44   50 47  2 31  6 27 54 43   49 48  1 32  3 30 51 46
  8 25 56 41 52 45  4 29    8 25 56 41 52 45  4 29    7 26 55 42 51 46  3 30    8 25 56 41 54 43  6 27
 51 46  3 30  7 26 55 42   50 47  2 31  6 27 54 43   49 48  1 32  5 28 53 44   50 47  2 31  4 29 52 45
  6 27 54 43 50 47  2 31    7 26 55 42 51 46  3 30    8 25 56 41 52 45  4 29    7 26 55 42 53 44  5 28
 60 37 12 21 16 17 64 33   60 37 12 21 16 17 64 33   59 38 11 22 15 18 63 34   62 35 14 19 16 17 64 33
 13 20 61 36 57 40  9 24   13 20 61 36 57 40  9 24   14 19 62 35 58 39 10 23   11 22 59 38 57 40  9 24
                 43921/                    44641/                 45361/MCCMS8
 62 35 14 19 16 17 64 33   63 34 15 18 16 17 64 33   64 33 16 17 15 18 63 34
 11 22 59 38 57 40  9 24   10 23 58 39 57 40  9 24    9 24 57 40 58 39 10 23
 50 47  2 31  4 29 52 45   51 46  3 30  4 29 52 45   52 45  4 29  3 30 51 46
  7 26 55 42 53 44  5 28    6 27 54 43 53 44  5 28    5 28 53 44 54 43  6 27
 49 48  1 32  3 30 51 46   49 48  1 32  2 31 50 47   50 47  2 31  1 32 49 48
  8 25 56 41 54 43  6 27    8 25 56 41 55 42  7 26    7 26 55 42 56 41  8 25
 61 36 13 20 15 18 63 34   61 36 13 20 14 19 62 35   62 35 14 19 13 20 61 36
 12 21 60 37 58 39 10 23   12 21 60 37 59 38 11 22   11 22 59 38 60 37 12 21
[Count(n1==1/All) = 720/46080]  OK!

** Calculated and Listed by Kanji Setsuda on
    Nov.20, 2015 with MacOSX EIC 10.11.1 and Xcode 7.1.1 **
```

４．実行結果のチェック

ほんの一部しか示せないが，解の各部の定和成立をチェックしたものをリストにする。

```
** 二次元の多重四方陣型正方連結完全汎八方陣のチェックサム・モニター（抜粋）**
                          1# |Rw1+Rw2|Cl1+Cl2\Pd1/Pd2|Composite Fours
  1 63  4 62 36 30 33 31 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 60  6 57  7 25 39 28 38 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 13 51 16 50 48 18 45 19 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 56 10 53 11 21 43 24 42 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 29 35 32 34 64  2 61  3 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 40 26 37 27  5 59  8 58 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 17 47 20 46 52 14 49 15 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 44 22 41 23  9 55 12 54 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
                        121# |Rw1+Rw2|Cl1+Cl2\Pd1/Pd2|Composite Fours
  1 62  4 63 36 31 33 30 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 60  7 57  6 25 38 28 39 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 13 50 16 51 48 19 45 18 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 56 11 53 10 21 42 24 43 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 29 34 32 35 64  3 61  2 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 40 27 37 26  5 58  8 59 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 17 46 20 47 52 15 49 14 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 44 23 41 22  9 54 12 55 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
```

```
                                241# |Rw1+Rw2|Cl1+Cl2\Pd1/Pd2|Composite Fours
 1 60  6 63 38 31 33 28 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
62  7 57  4 25 36 30 39 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
11 50 16 53 48 21 43 18 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
56 13 51 10 19 42 24 45 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
27 34 32 37 64  5 59  2 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
40 29 35 26  3 58  8 61 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
17 44 22 47 54 15 49 12 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
46 23 41 20  9 52 14 55 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
                                361# |Rw1+Rw2|Cl1+Cl2\Pd1/Pd2|Composite Fours
 1 56 10 63 42 31 33 24 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
62 11 53  4 21 36 30 43 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 7 50 16 57 48 25 39 18 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
60 13 51  6 19 38 28 45 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
23 34 32 41 64  9 55  2 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
44 29 35 22  3 54 12 61 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
17 40 26 47 58 15 49  8 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
46 27 37 20  5 52 14 59 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
                                481# |Rw1+Rw2|Cl1+Cl2\Pd1/Pd2|Composite Fours
 1 48 18 63 50 31 33 16 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
62 19 45  4 13 36 30 51 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 7 42 24 57 56 25 39 10 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
60 21 43  6 11 38 28 53 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
15 34 32 49 64 17 47  2 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
52 29 35 14  3 46 20 61 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 9 40 26 55 58 23 41  8 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
54 27 37 12  5 44 22 59 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
                                601# |Rw1+Rw2|Cl1+Cl2\Pd1/Pd2|Composite Fours
 1 32 34 63 50 47 17 16 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
62 35 29  4 13 20 46 51 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 7 26 40 57 56 41 23 10 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
60 37 27  6 11 22 44 53 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
15 18 48 49 64 33 31  2 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
52 45 19 14  3 30 36 61 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
 9 24 42 55 58 39 25  8 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
54 43 21 12  5 28 38 59 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
                                721# |Rw1+Rw2|Cl1+Cl2\Pd1/Pd2|Composite Fours
 2 64  3 61 35 29 34 32 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
59  5 58  8 26 40 27 37 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
14 52 15 49 47 17 46 20 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
55  9 54 12 22 44 23 41 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
30 36 31 33 63  1 62  4 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
39 25 38 28  6 60  7 57 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
18 48 19 45 51 13 50 16 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
43 21 42 24 10 56 11 53 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
                               1441# |Rw1+Rw2|Cl1+Cl2\Pd1/Pd2|Composite Fours
 3 64  2 61 34 29 35 32 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
58  5 59  8 27 40 26 37 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
15 52 14 49 46 17 47 20 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
54  9 55 12 23 44 22 41 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
31 36 30 33 62  1 63  4 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
38 25 39 28  7 60  6 57 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
19 48 18 45 50 13 51 16 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
42 21 43 24 11 56 10 53 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
                               2161# |Rw1+Rw2|Cl1+Cl2\Pd1/Pd2|Composite Fours
 4 63  1 62 33 30 36 31 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
57  6 60  7 28 39 25 38 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
16 51 13 50 45 18 48 19 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
53 10 56 11 24 43 21 42 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
32 35 29 34 61  2 64  3 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
37 26 40 27  8 59  5 58 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
20 47 17 46 49 14 52 15 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
41 22 44 23 12 55  9 54 |130+130|130+130\260/260|130 130 130 130 130 130 130 130
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** 三次元の準正方連結型補数対称立体四方陣 SCMC4/ のチェックサム・モニター（抜粋）**

```
                    1#      CS|Row, Column, Pillar|Sum of Symmetric Pair|Composite Fours
 1------63------62------ 4      |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |48      |18      |19      |45 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
60  32    6  34    7  35   57  29|130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |21  49--+43--15--+42--14--+24--52|130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
56  37 | 10  27 | 11  26 | 53  40 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |25  12  |39  54  |38  55  |28  9 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
13--41-|-51--23-|-50--22-|-16  44 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  36   8   30  58   31  59  33  5 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
    20 |     46 |     47 |     17 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
      61------ 3------ 2------64 |130 130 130         | 65                  |130 130 130

                   121#      CS|Row, Column, Pillar|Sum of Symmetric Pair|Composite Fours
 1------62------63------ 4      |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |48      |19      |18      |45 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
60  32    7  35    6  34   57  29|130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |21  49--+42--14--+43--15--+24--52|130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
56  37 | 11  26 | 10  27 | 53  40 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |25  12  |38  55  |39  54  |28  9 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
13--41-|-50--22-|-51--23-|-16  44 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  36   8   31  59   30  58  33  5 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
    20 |     47 |     46 |     17 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
      61------ 2------ 3------64 |130 130 130         | 65                  |130 130 130

                   241#      CS|Row, Column, Pillar|Sum of Symmetric Pair|Composite Fours
 1------60------63------ 6      |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |48      |21      |18      |43 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
62  32    7  37    4  34   57  27|130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |19  49--+42--12--+45--15--+24--54|130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
56  35 | 13  26 | 10  29 | 51  40 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |25  14  |36  55  |39  52  |30  9 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
11--41-|-50--20-|-53--23-|-16  46 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  38   8   31  61   28  58  33  3 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
    22 |     47 |     44 |     17 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
      59------ 2------ 5------64 |130 130 130         | 65                  |130 130 130

                   361#      CS|Row, Column, Pillar|Sum of Symmetric Pair|Composite Fours
 1------56------63------10      |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |48      |25      |18      |39 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
62  32   11  41    4  34   53  23|130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |19  49--+38--  8--+45--15--+28--58|130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
60  35 | 13  22 |  6  29 | 51  44 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |21  14  |36  59  |43  52  |30  5 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 7--37-|-50--20-|-57--27-|-16  46 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  42  12   31  61   24  54  33  3 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
    26 |     47 |     40 |     17 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
      55------ 2------ 9------64 |130 130 130         | 65                  |130 130 130

                   481#      CS|Row, Column, Pillar|Sum of Symmetric Pair|Composite Fours
 1------48------63------18      |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |56      |25      |10      |39 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
62  32   19  49    4  34   45  15|130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |11  41--+38--  8--+53--23--+28--58|130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
60  35 | 21  14 |  6  29 | 43  52 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |13  22  |36  59  |51  44  |30  5 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 7--37-|-42--12-|-57--27-|-24  54 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  50  20   31  61   16  46  33  3 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
    26 |     55 |     40 |     9  |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
      47------ 2------17------64 |130 130 130         | 65                  |130 130 130

                   601#      CS|Row, Column, Pillar|Sum of Symmetric Pair|Composite Fours
 1------32------63------34      |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |56      |41      |10      |23 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
62  48   35  49    4  18   29  15|130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |11  25--+22--  8--+53--39--+44--58|130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
60  19 | 37  14 |  6  45 | 27  52 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 |13  38  |20  59  |51  28  |46  5 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 7--21-|-26--12-|-57--43-|-40  54 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  50  36   47  61   16  30  17  3 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
    42 |     55 |     24 |     9  |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
      31------ 2------33------64 |130 130 130         | 65                  |130 130 130
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                    721#      CS|Row, Column, Pillar|Sum of Symmetric Pair|Composite Fours
 2-------64-------61-------3      |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  |47       |17       |20       |46      |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 59  31     5  33     8  36    58  30     |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  |22  50--+44--16--+41--13--+23--51 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 55  38 |  9  28 |  12  25 |  54  39 |  |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  |26  11   |40  53   |37  56   |27  10 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 14--42-|-52--24-|-49--21-|-15  43 |  |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
   35   7    29  57    32  60    34   6 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
     19 |       45 |       48 |       18 |  |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
        62-------- 4--------1--------63 |130 130 130          | 65                  |130 130 130

                   1441#      CS|Row, Column, Pillar|Sum of Symmetric Pair|Composite Fours
 3-------64-------61-------2      |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  |46       |17       |20       |47      |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 58  30     5  33     8  36    59  31     |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  |23  51--+44--16--+41--13--+22--50 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 54  39 |  9  28 |  12  25 |  55  38 |  |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  |27  10   |40  53   |37  56   |26  11 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 15--43-|-52--24-|-49--21-|-14  42 |  |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
   34   6    29  57    32  60    35   7 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
     18 |       45 |       48 |       19 |  |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
        63-------- 4--------1--------62 |130 130 130          | 65                  |130 130 130

                   2161#      CS|Row, Column, Pillar|Sum of Symmetric Pair|Composite Fours
 4-------63-------62-------1      |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  |45       |18       |19       |48      |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 57  29     6  34     7  35    60  32     |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  |24  52--+43--15--+42--14--+21--49 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 53  40 |  10  27 |  11  26 |  56  37 |  |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
  |28   9   |39  54   |38  55   |25  12 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
 16--44-|-51--23-|-50--22-|-13  41 |  |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
   33   5    30  58    31  59    36   8 |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
     17 |       46 |       47 |       20 |  |130 130 130 130 130| 65 65 65 65 65 65 65|130 130 130 130 130 130
        64-------- 3--------2--------61 |130 130 130          | 65                  |130 130 130
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** 三次元の正方連結型完全汎立体四方陣 CCMC4/ のチェックサム・エラー（抜粋）**

```
                     1#      CSE|Rw,Cl,&Pl|Complete Pair|Composite Fours
 1-------63-------- 4--------62       |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  |48       |18       |45       |19      |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 60  49     6  15    57  52     7  14     |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  |21  32--+43--34--+24--29--+42--35 |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 13  12 |  51  54 |  16   9 |  50  55 |  |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  |36  37   |30  27   |33  40   |31  26 |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 56--61-|-10--3-|-53--64-|-11   2 |  |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
   25  20    39  46    28  17    38  47 |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
      8 |       58 |        5 |       59 |  |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
        41--------23--------44--------22 |0 0 0    |0            |0 0 0 0 0 0 0 0 0 0 0 0 0

                    121#      CSE|Rw,Cl,&Pl|Complete Pair|Composite Fours
 1-------62-------- 4--------63       |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  |48       |19       |45       |18      |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 60  49     7  14    57  52     6  15     |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  |21  32--+42--35--+24--29--+43--34 |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 13  12 |  50  55 |  16   9 |  51  54 |  |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  |36  37   |31  26   |33  40   |30  27 |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 56--61-|-11--2-|-53--64-|-10   3 |  |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
   25  20    38  47    28  17    39  46 |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
      8 |       59 |        5 |       58 |  |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
        41--------22--------44--------23 |0 0 0    |0            |0 0 0 0 0 0 0 0 0 0 0 0 0

                    241#      CSE|Rw,Cl,&Pl|Complete Pair|Composite Fours
 1-------60-------- 6--------63       |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  |48       |21       |43       |18      |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 62  49     7  12    57  54     4  15     |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  |19  32--+42--37--+24--27--+45--34 |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 11  14 |  50  55 |  16   9 |  53  52 |  |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  |38  35   |31  26   |33  40   |28  29 |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 56--59-|-13--2-|-51--64-|-10   5 |  |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
   25  22    36  47    30  17    39  44 |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
      8 |       61 |        3 |       58 |  |0 0 0 0 0|0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
        41--------20--------46--------23 |0 0 0    |0            |0 0 0 0 0 0 0 0 0 0 0 0 0
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                    361#     CSE|Rw,Cl,&Pl||Complete Pair|Composite Fours
1-------56-------10-------63        |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |48      |25      |39      |18      |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
62  49   11   8   53  58    4  15    |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |19  32--+38--41--+28--23--+45--34 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 7  14 | 50  59 | 16  5  | 57  52 | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |42  35  |31  22  |33  44  |24  29 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
60--55-|-13--2-|-51--64-|- 6  9  | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  21  26   36  47   30  17   43  40 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    12 |     61 |     3  |     54 | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
      37-------20-------46-------27 |0 0 0    |0            |0 0 0 0 0 0 0 0 0 0 0 0 0

                    481#     CSE|Rw,Cl,&Pl||Complete Pair|Composite Fours
1-------48-------18-------63        |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |56      |25      |39      |10      |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
62  41   19   8   45  58    4  23    |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |11  32--+38--49--+28--15--+53--34 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 7  22 | 42  59 | 24  5  | 57  44 | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |50  35  |31  14  |33  52  |16  29 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
60--47-|-21--2-|-43--64-|- 6  17 | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  13  26   36  55   30  9    51  40 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    20 |     61 |     3  |     46 | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
      37-------12-------54-------27 |0 0 0    |0            |0 0 0 0 0 0 0 0 0 0 0 0 0

                    601#     CSE|Rw,Cl,&Pl||Complete Pair|Composite Fours
1-------32-------34-------63        |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |56      |41      |23      |10      |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
62  25   35   8   29  58    4  39    |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |11  48--+22--49--+44--15--+53--18 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 7  38 | 26  59 | 40  5  | 57  28 | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |50  19  |47  14  |17  52  |16  45 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
60--31-|-37--2-|-27--64-|- 6  33 | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  13  42   20  55   46  9    51  24 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    36 |     61 |     3  |     30 | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
      21-------12-------54-------43 |0 0 0    |0            |0 0 0 0 0 0 0 0 0 0 0 0 0

                    721#     CSE|Rw,Cl,&Pl||Complete Pair|Composite Fours
2-------64-------3--------61        |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |47      |17      |46      |20      |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
59  50   5   16   58  51    8  13    |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |22  31--+44--33--+23--30--+41--36 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
14  11 | 52  53 | 15  10 | 49  56 | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |35  38  |29  28  |34  39  |32  25 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
55--62-|-9--4-|-54--63-|-12  1  | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  26  19   40  45   27  18   37  48 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    7 |     57 |     6  |     60 | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
      42-------24-------43-------21 |0 0 0    |0            |0 0 0 0 0 0 0 0 0 0 0 0 0

                    1441#    CSE|Rw,Cl,&Pl||Complete Pair|Composite Fours
3-------64-------2--------61        |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |46      |17      |47      |20      |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
58  51   5   16   59  50    8  13    |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |23  30--+44--33--+22--31--+41--36 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
15  10 | 52  53 | 14  11 | 49  56 | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |34  39  |29  28  |35  38  |32  25 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
54--63-|-9--4-|-55--62-|-12  1  | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  27  18   40  45   26  19   37  48 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    6 |     57 |     7  |     60 | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
      43-------24-------42-------21 |0 0 0    |0            |0 0 0 0 0 0 0 0 0 0 0 0 0

                    2161#    CSE|Rw,Cl,&Pl||Complete Pair|Composite Fours
 4-------63-------1--------62       |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |45      |18      |48      |19      |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
57  52    6  15   60  49    7  14    |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |24  29--+43--34--+21--32--+42--35 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
16  9  | 51  54 | 13  12 | 50  55 | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 |33  40  |30  27  |36  37  |31  26 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
53--64-|-10--3-|-56--61-|-11  2  | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  28  17   39  46   25  20   38  47 |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
    5 |     58 |     8  |     59 | |0 0 0 0 0|0 0 0 0 0 0 0 0|0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
      44-------23-------41-------22 |0 0 0    |0            |0 0 0 0 0 0 0 0 0 0 0 0 0
  . . . . .
```

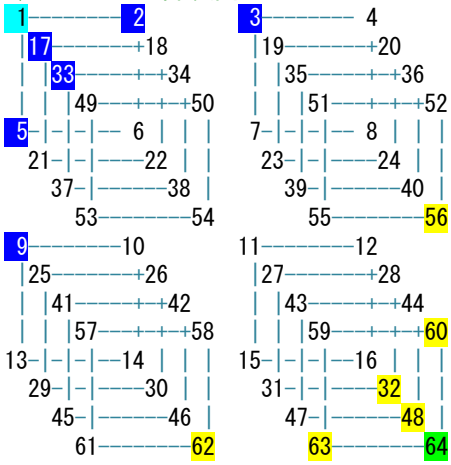
[Count(n1==1/All) = 720/46080] OK!

** Calculated and Listed by Kanji Setsuda on
Nov.20, 2015 with MacOSX EIC 10.11.1 and Xcode 7.1.1 **

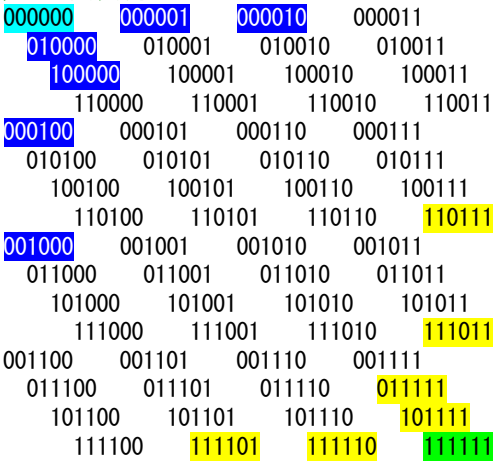
５．コメント

実行結果を精細にチェックした結果，どれもが想定通りの正解であった。
しかも，解の内容も出力順序も，前節と全く同じであった。全てを再現できたわけだ。
これは，新基本図をもとにした**逆関数**が正しく解けたことの証拠になると思われる。
違ったタイプからも自己自身を含めて６つの目的方陣が「同時に」得られていることは，やはり全部が「唯一の概念」を指し示していると考えられる。それが六次元超立体二方陣であり，他の５方陣の全てがその「直系」であることを示しているのではあるまいか。

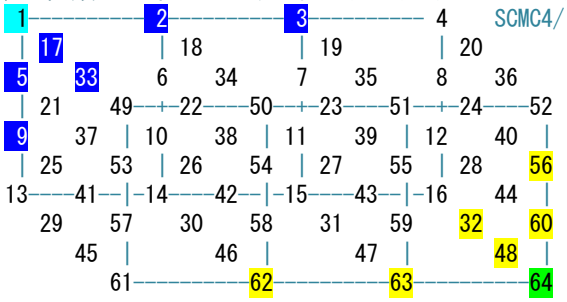
/六次元二方陣展開図



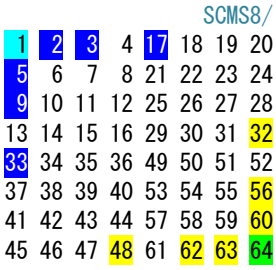
/二進法表現



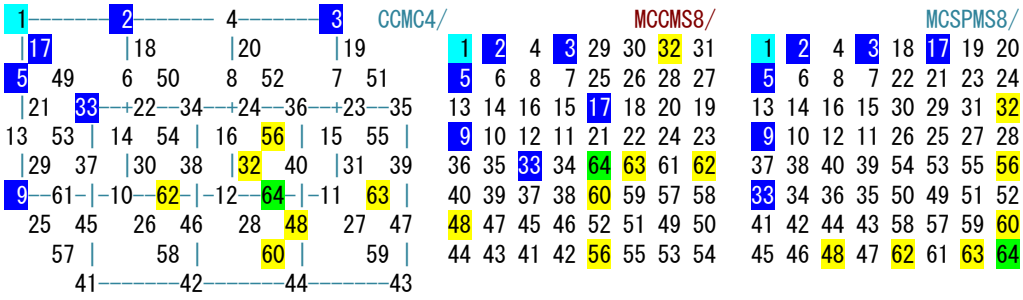
/二種類の基本図：補数対称型(中段)と完全型(下段)：立方体四方陣(左)と正方形八方陣(右)



SCMC4/



SCMS8/

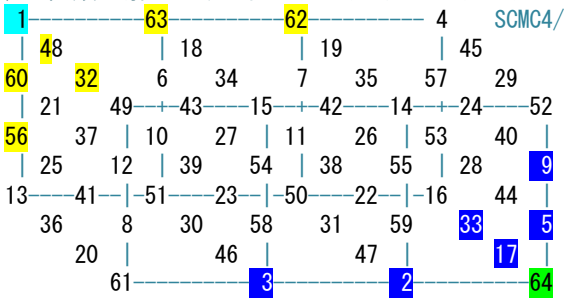


CCMC4/

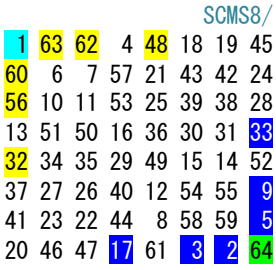
MCCMS8/

MCSPMS8/

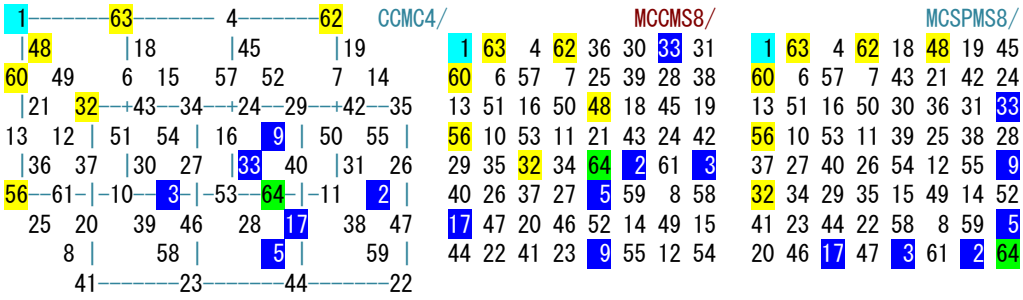
/二種類の解：補数対称型(上段)と完全型(下段)：立方体四方陣(左)と正方形八方陣(右)



SCMC4/



SCMS8/



今回も，各解の「数値 1の隣の６数」：63, 62, 60, 56, 48, 32 すなわち二進数で表すと111110(二), 111101(二), 111011(二), 110111(二), 101111(二), 011111(二) の各々が，基本図での「原点 1の隣の６数」：2(000001(二)), 3(000010(二)), 5(000100(二)), 9(001000(二)), 17(010000(二)), 33(100000(二)) と一対一対応する「対称型補数」になっている。

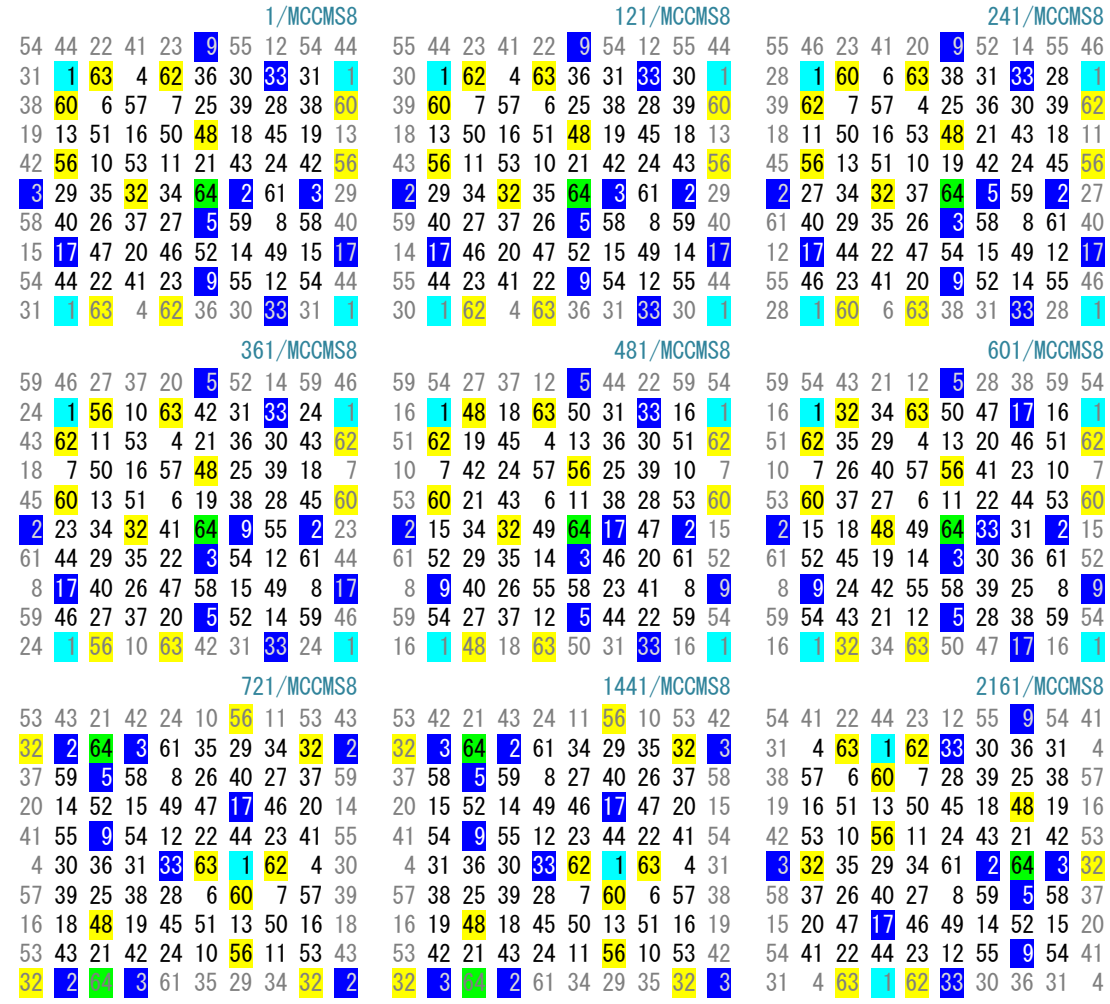
基本図での原点 1の周辺の６数は，各解では数値 64の周囲に集まっている。それ故に**補数対称型**の場合，**ユニット・イェロー**の６数と**ユニット・ブルー**の６数の間には，点対称型の「相似の配置」が見られる。

それが**完全型方陣**に変換されると，一見して複雑な様相を呈するが，要するに２組の**ユニット**６×２数の間に独特な「規則的・対抗的配置」が生じている。

1に対応する64を「**汎対称点**」と呼ぶからには，これを「**汎対称的**な配置」と言うべきか。平面八方陣では，汎対角線上を４つ進んだ（あるいは４つ後退した）場所にそれはある。

完全型汎八方陣の場合は，下図のような「方陣拡張空間」を作って比較すると，全てがわかりやすい。同じような相似の補数構造が「汎対称」の位置に見られる。

** 多重四方陣型正方連結完全汎八方陣の空間を 10×10 に拡張してみると **



2881/MCCMS8

51	42	19	45	24	13	56	10	51	42
32	5	64	2	59	34	27	37	32	5
35	58	3	61	8	29	40	26	35	58
22	15	54	12	49	44	17	47	22	15
41	52	9	55	14	23	46	20	41	52
6	31	38	28	33	60	1	63	6	31
57	36	25	39	30	7	62	4	57	36
16	21	48	18	43	50	11	53	16	21
51	42	19	45	24	13	56	10	51	42
32	5	64	2	59	34	27	37	32	5

3601/MCCMS8

52	41	20	46	23	14	55	9	52	41
31	6	63	1	60	33	28	38	31	6
36	57	4	62	7	30	39	25	36	57
21	16	53	11	50	43	18	48	21	16
42	51	10	56	13	24	45	19	42	51
5	32	37	27	34	59	2	64	5	32
58	35	26	40	29	8	61	3	58	35
15	22	47	17	44	49	12	54	15	22
52	41	20	46	23	14	55	9	52	41
31	6	63	1	60	33	28	38	31	6

4321/MCCMS8

52	41	20	47	22	15	54	9	52	41
30	7	62	1	60	33	28	39	30	7
36	57	4	63	6	31	38	25	36	57
21	16	53	10	51	42	19	48	21	16
43	50	11	56	13	24	45	18	43	50
5	32	37	26	35	58	3	64	5	32
59	34	27	40	29	8	61	2	59	34
14	23	46	17	44	49	12	55	14	23
52	41	20	47	22	15	54	9	52	41
30	7	62	1	60	33	28	39	30	7

5041/MCCMS8

51	42	19	48	21	16	53	10	51	42
29	8	61	2	59	34	27	40	29	8
35	58	3	64	5	32	37	26	35	58
22	15	54	9	52	41	20	47	22	15
44	49	12	55	14	23	46	17	44	49
6	31	38	25	36	57	4	63	6	31
60	33	28	39	30	7	62	1	60	33
13	24	45	18	43	50	11	56	13	24
51	42	19	48	21	16	53	10	51	42
29	8	61	2	59	34	27	40	29	8

5761/MCCMS8

51	38	19	45	28	13	60	6	51	38
32	9	64	2	55	34	23	41	32	9
35	54	3	61	12	29	44	22	35	54
26	15	58	8	49	40	17	47	26	15
37	52	5	59	14	27	46	20	37	52
10	31	42	24	33	56	1	63	10	31
53	36	21	43	30	11	62	4	53	36
16	25	48	18	39	50	7	57	16	25
51	38	19	45	28	13	60	6	51	38
32	9	64	2	55	34	23	41	32	9

6481/MCCMS8

52	37	20	46	27	14	59	5	52	37
31	10	63	1	56	33	24	42	31	10
36	53	4	62	11	30	43	21	36	53
25	16	57	7	50	39	18	48	25	16
38	51	6	60	13	28	45	19	38	51
9	32	41	23	34	55	2	64	9	32
54	35	22	44	29	12	61	3	54	35
15	26	47	17	40	49	8	58	15	26
52	37	20	46	27	14	59	5	52	37
31	10	63	1	56	33	24	42	31	10

しかも，基本図と各解を丁寧に比較すると，対称型・完全型に関わらずいずれの場合にも**ユニット・イェロー**の６数と**ユニット・ブルー**の６数の間に「反転・交換」がある。場所は変わらないのに，基本図と各解の間で６数の総入れ替えが起きている。

これあるが故に，どの解でも，1に隣接する６数の顔ぶれとその座席が決まれば，64に隣接する６数の顔ぶれと座席も決まり，他の50数の配置も一義的に決まってしまうのだ。

しかも，これらのユニットの各６数は，いずれの場合も本来**六次元超立体二方陣**を象徴する存在であった。それがこのような相似の補数構造を持って配置されている。

この必然的な「配置」は，これらの魔方陣に備わる本来の「構造」と言うべきだろう。

今回も前節と同じ結論に達した。
登山口こそ違え，同じ富士山に登った感覚を持った。頂上から見れば，絶景あるのみ！

(最新改定稿：Written on Nov.20, 2015 with MacOSX EIC 10.11.1 and Xcode 7.1.1;
計算・作図・著述 by 摂田 寛二(Kanji Setsuda))

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