**CAMINOS POSIBLES**

h1

x11 = R1,R4,R2

x12 = R1,R5,R2

x13 = R1,R4,R3,R5,R2

x14 = R1,R5,R3,R4,R2

x15 = R1,R4,R5,R2

x16 = R1,R5,R4,R2

h2

x21 = R1,R5,R3

x22 = R1,R4,R3

x23 = R1,R5,R2,R4,R3

x24 = R1,R4,R2,R5,R3

x25 = R1,R4,R5,R3

x26 = R1,R5,R4,R3

h3

x31 = R2,R4,R1

x32 = R2,R5,R1

x33 = R2,R4,R3,R5,R1

x34 = R2,R5,R3,R4,R1

x35 = R2,R4,R5,R1

x36 = R2,R5,R4,R1

h4

x41 = R2,R5,R3

x42 = R2,R4,R3

x43 = R2,R5,R1,R4,R3

x44 = R2,R4,R1,R5,R3

x45 = R2,R4,R5,R3

x46 = R2,R5,R4,R3

h5

x51 = R3,R4,R1

x52 = R3,R5,R1

x53 = R3,R4,R2,R5,R1

x54 = R3,R5,R2,R4,R1

x55 = R3,R5,R4,R1

x56 = R3,R4,R5,R1

h6

x61 = R3,R4,R2

x62 = R3,R5,R2

x63 = R3,R4,R1,R5,R2

x64 = R3,R5,R1,R4,R2

x65 = R3,R5,R4,R2

x66 = R3,R4,R5,R2

**Restricciones de igualdad**

x11+x12+x13+x14+x15+x16=h1

x21+x22+x23+x24+x25+x26=h2

x31+x32+x33+x34+x35+x36=h3

x41+x42+x43+x44+x45+x46=h4

x51+x52+x53+x54+x55+x56=h5

x61+x62+x63+x64+x65+x66=h6

**Restricciones de desigualdad**

**e=1 (intra r1<->r4)**

x11+x13+x15+x22+x24+x25+x31+x34+x36+x43+x44+x51+x54+x55+x63+x64<=20\*10⁶y1, intra

**e=2 (inter r1<->r5)**

x12+x14+x16+x21+x23+x26+x32+x33+x35+x43+x44+x52+x53+x56+x63+x64<=50\*10⁶y2,inter

**e=3 (intra r2<->r4)**

x11+x14+x16+x23+x24+x31+x33+x35+x42+x44+x45+x53+x54+x61+x64+x65<=20\*10⁶y3,intra

**e=4 (inter r2<->r5)**

x12+x13+x15+x23+x24+x32+x34+x36+x41+x43+x46+x53+x54+x62+x63+x66<=50\*10⁶y4,inter

**e=5 (inter r3<->r4)**

x13+x14+x22+x23+x26+x33+x34+x42+x43+x46+x51+x53+x56+x61+x63+x66<=50\*10⁶y5,inter

**e=6 (intra r3<->r5)**

x13+x14+x21+x24+x25+x33+x34+x41+x44+x45+x52+x54+x55+x62+x64+x65<=20\*10⁶y6,intra