New Graph

[3, 3, 2], [2, 1, 1]

$\pi = [1, 1, 1]$
$\delta = [2, 2, 2]$

POSSIBLE RANKS

1 x 3

BASE DETERMINANT 1/4, .2500000000

NullSpace of Δ

{1, 2, 3}

Nullspace of A

` det(A) = ` 1/4

1 . Coloring, {}

R: [3, 3, 2]
B: [2, 1, 1]

` See graph

` ` See pair graph

`

Δ-Rank	A+(1/2)Δ	A-(1/2)Δ	R	B
2 *vs* 2	3 *vs* 3	3 *vs* 3	2 *vs* 2	2 *vs* 2

Omega Rank for R :
$-t^{+} \quad t^{3}$

,
cycles: {{2, 3}} order: 2

$$\begin{pmatrix} 0 & 1 & 2 \\ 0 & 2 & 1 \end{pmatrix}$$

$$[0, y_1, y_2]$$

Omega Rank for B :
$-t^{+} \quad t^{3}$

,
cycles: {{1, 2}} order: 2

$$\begin{pmatrix} 2 & 1 & 0 \\ 1 & 2 & 0 \end{pmatrix}$$

$$[y_1, y_2, 0]$$

2 . Coloring, {2}

Ωp(Δ)=0: p = *s* p' = *s*

R: [3, 1, 2]
B: [2, 3, 1]

` See graph

` ` See pair graph

`

Δ-Rank	A+(1/2)Δ	A-(1/2)Δ	R	B
0 *vs* 2	1 *vs* 3	1 *vs* 3	1 *vs* 3	1 *vs* 3

Omega Rank for R :
$-1^{+}\ t^3$
,
cycles: {{1, 2, 3}} order: 3

$$\begin{matrix} 1 & 1 & 1 \\ (1 & 1 & 1) \\ 1 & 1 & 1 \end{matrix}$$

$$[y_1, y_1, y_1]$$

$p' = -1^{+}\ s$ $p' = -1^{+}\ s^2$

Omega Rank for B :
$-1^{+}\ t^3$
,
cycles: {{1, 2, 3}} order: 3

$$\begin{matrix} 1 & 1 & 1 \\ (1 & 1 & 1) \\ 1 & 1 & 1 \end{matrix}$$

$$[y_1, y_1, y_1]$$

$p' = -1^{+}\ s^2$ $p' = -1^{+}\ s$

` See 3-level graph

`

$$\begin{matrix} & M & & & N & \\ 0 & 1 & 1 & 0 & 1 & 1 \\ (1 & 0 & 1) & (1 & 0 & 1) \\ 1 & 1 & 0 & 1 & 1 & 0 \end{matrix}$$

$$\begin{matrix} & NM & \\ 2 & 1 & 1 \\ (1 & 2 & 1) \\ 1 & 1 & 2 \end{matrix}$$

τ= 3 , r'= 2/3

R: [3, 1, 2]
B: [2, 3, 1]

Ranges

Action of R on ranges, [[1]]
Action of B on ranges, [[1]]

Cycles: R , {{1, 2, 3}}, B , {{1, 2, 3}}

β({1, 2, 3}) = 1/1

Partitions
α([{2}, {1}, {3}]) = 1/1

b1 = {2} ` , ` b2 = {1} ` , ` b3 = {3}

Action of R and B on the blocks of the partitions: = [3, 1, 2] [2, 3, 1]
with invariant measure [1, 1, 1]

N by blocks, check: true . ` See partition graph.

` ` See level-3 partition graph.

`

Right Group	
Warning: persistent store makes readlib obsolete	
Coloring	{2}
Rank	3
R,B	[3, 1, 2], [2, 3, 1]
π_2	[1, 1, 1]
u_2	[1, 1, 1] (dim 1)
wpp	[1, 1, 1]
π_3	[1]
u_3	[1]

3 . Coloring, {3}

R: [3, 3, 1]
B: [2, 1, 2]

` See graph

` ` See pair graph

`

Δ-Rank	A+(1/2)Δ	A-(1/2)Δ	R	B
2 *vs* 2	3 *vs* 3	3 *vs* 3	2 *vs* 2	2 *vs* 2

Omega Rank for R :
$-t + t^3$

,
cycles: {{1, 3}} order: 2

$$\begin{pmatrix} 1 & 0 & 2 \\ 2 & 0 & 1 \end{pmatrix}$$

$$[y_1, 0, y_2]$$

Omega Rank for B :
$-t + t^3$

,
cycles: {{1, 2}} order: 2

$$\begin{pmatrix} 1 & 2 & 0 \\ 2 & 1 & 0 \end{pmatrix}$$

$$[y_1, y_2, 0]$$

4 . Coloring, {2, 3}

R: [3, 1, 1]
B: [2, 3, 2]

` See graph

` ` See pair graph

`

Δ-Rank	A+(1/2)Δ	A-(1/2)Δ	R	B
2 *vs* 2	3 *vs* 3	3 *vs* 3	2 *vs* 2	2 *vs* 2

Omega Rank for R :
$-t + t^3$

,
cycles: {{1, 3}} order: 2

$$\begin{pmatrix} 2 & 0 & 1 \\ 1 & 0 & 2 \end{pmatrix}$$

$$[y_1, 0, y_2]$$

Omega Rank for B :
$-t + t^3$

,
cycles: {{2, 3}} order: 2

$$\begin{pmatrix} 0 & 2 & 1 \\ 0 & 1 & 2 \end{pmatrix}$$

$$[0, y_1, y_2]$$

SUMMARY	
Graph Type	NOT CC
ν(A)	0
ν(Δ)	1
π	[1, 1, 1]
Dbly Stoch	true

SANDWICH		Total 0
No .	Coloring	Rank

RT GROUPS		Total 1	
No .	Coloring	Rank	Solv
1	{2}	3	["group", Solvable]

Δ-RANK'D	SC'D !RK'D	τ-RANK'D	R/B RANK'D	NOT SYNC'D	Total Runs	2^{n-1}
3	0	3 , 3	3 , 3	1	4	4