New Graph

[2, 3, 1, 2], [4, 4, 4, 3]

π = [3, 5, 6, 7]

POSSIBLE RANKS

1 x 21
3 x 7

BASE DETERMINANT 17/64, .2656250000

NullSpace of Δ

{1, 2, 3, 4}

Nullspace of A
=
det(*A*) -1/8

1 . Coloring, {}

R: [2, 3, 1, 2]
B: [4, 4, 4, 3]

See graph

See pair graph

Δ-Rank	**A+(1/2)Δ**	**A-(1/2)Δ**	**R**	**B**
3 *vs* 3	4 *vs* 4	4 *vs* 4	3 *vs* 3	2 *vs* 2

Omega Rank for R : cycles: {{1, 2, 3}} order: 3

See Matrix

$[y_3, y_1, y_2, 0]$

Omega Rank for B : cycles: {{3, 4}} order: 2

See Matrix

$[0, 0, y_2, y_1]$

2 . Coloring, {2}

R: [2, 4, 1, 2]
B: [4, 3, 4, 3]

See graph

See pair graph

Δ-Rank	**A+(1/2)Δ**	**A-(1/2)Δ**	**R**	**B**
3 *vs* 3	3 *vs* 4	4 *vs* 4	3 *vs* 3	2 *vs* 2

Omega Rank for R : cycles: {{2, 4}} order: 2

See Matrix

$[y_1, y_2, 0, y_3]$

Omega Rank for B : cycles: {{3, 4}} order: 2

See Matrix

$[0, 0, y_1, y_2]$

3 . Coloring, {3}

R: [2, 3, 4, 2]
B: [4, 4, 1, 3]

See graph

See pair graph

Δ-Rank	**A+(1/2)Δ**	**A-(1/2)Δ**	**R**	**B**
3 *vs* 3	4 *vs* 4	4 *vs* 4	3 *vs* 3	3 *vs* 3

Omega Rank for R : cycles: {{2, 3, 4}} order: 3

See Matrix

$[0, y_1, y_2, y_3]$

Omega Rank for B : cycles: {{1, 3, 4}} order: 3

See Matrix

$[y_1, 0, y_2, y_3]$

4 . Coloring, {4}

R: [2, 3, 1, 3]
B: [4, 4, 4, 2]

See graph

See pair graph

Δ-Rank	**A+(1/2)Δ**	**A-(1/2)Δ**	**R**	**B**
3 *vs* 3	4 *vs* 4	4 *vs* 4	3 *vs* 3	2 *vs* 2

Omega Rank for R : cycles: {{1, 2, 3}} order: 3

See Matrix

$[y_3, y_1, y_2, 0]$

Omega Rank for B : cycles: {{2, 4}} order: 2

See Matrix

$[0, y_1, 0, y_2]$

5 . Coloring, {2, 3}

R: [2, 4, 4, 2]
B: [4, 3, 1, 3]

See graph

See pair graph

Δ-Rank	**A+(1/2)Δ**	**A-(1/2)Δ**	**R**	**B**
3 *vs* 3	4 *vs* 4	4 *vs* 4	2 *vs* 2	3 *vs* 3

Omega Rank for R : cycles: {{2, 4}} order: 2

See Matrix

$[0, y_1, 0, y_2]$

Omega Rank for B : cycles: {{1, 3, 4}} order: 3

See Matrix

$[y_1, 0, y_2, y_3]$

6 . Coloring, {2, 4}

R: [2, 4, 1, 3]
B: [4, 3, 4, 2]

See graph

See pair graph

Δ-Rank	**A+(1/2)Δ**	**A-(1/2)Δ**	**R**	**B**
3 *vs* 3	3 *vs* 4	4 *vs* 4	4 *vs* 4	3 *vs* 3

Omega Rank for R : cycles: {{1, 2, 3, 4}} order: 4

See Matrix

$[y_2, y_1, y_3, y_4]$

Omega Rank for B : cycles: {{2, 3, 4}} order: 3

See Matrix

$[0, y_3, y_1, y_2]$

7 . Coloring, {3, 4}

R: [2, 3, 4, 3]
B: [4, 4, 1, 2]

See graph

See pair graph

Δ-Rank	**A+(1/2)Δ**	**A-(1/2)Δ**	**R**	**B**
3 *vs* 3	4 *vs* 4	4 *vs* 4	3 *vs* 3	3 *vs* 3

Omega Rank for R : cycles: {{3, 4}} order: 2

See Matrix

$[0, y_3, y_2, y_1]$

Omega Rank for B : cycles: {{2, 4}} order: 2

See Matrix

$[y_1, y_2, 0, y_3]$

8 . Coloring, {2, 3, 4}

R: [2, 4, 4, 3]
B: [4, 3, 1, 2]

See graph

See pair graph

Δ-Rank	**A+(1/2)Δ**	**A-(1/2)Δ**	**R**	**B**
3 *vs* 3	4 *vs* 4	4 *vs* 4	3 *vs* 3	4 *vs* 4

Omega Rank for R : cycles: {{3, 4}} order: 2

See Matrix

$[0, y_1, y_2, y_3]$

Omega Rank for B : cycles: {{1, 2, 3, 4}} order: 4

See Matrix

$[y_1, y_3, y_4, y_2]$

SUMMARY	
Graph Type	NOT CC
ν(A)	0
ν(Δ)	1
π	[3, 5, 6, 7]
Dbly Stoch	false

SANDWICH		Total 0
No .	**Coloring**	**Rank**

RT GROUPS		Total 0	
No .	**Coloring**	**Rank**	**Solv**

Δ-RANK'D	SC'D !RK'D	τ-RANK'D	R/B RANK'D	NOT SYNC'D	Total Runs	2^{n-1}
8	0	6 , 8	8 , 8	0	8	8