

FÉDÉRATION INTERNATIONALE
DE GYMNASTIQUE



TABLES OF DIFFICULTY
WOMEN'S PAIRS - MIXED PAIRS - MEN'S PAIRS
Dynamic Elements

Dynamic Elements

Pairs

	4	5	6	7	8	9	10	11	12	13	14	15	16	17					
4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
5																			
6	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
7																			
8	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
9																			
10	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
11																			
12	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
13																			
14	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
15																			
16	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
17																			
18	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
19																			
20	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
21																			
22	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
23																			

This Table is working from left to right:

Vertical column = first element

Horizontal row = second element

Dynamic Elements

Pairs

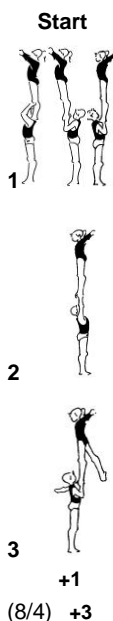
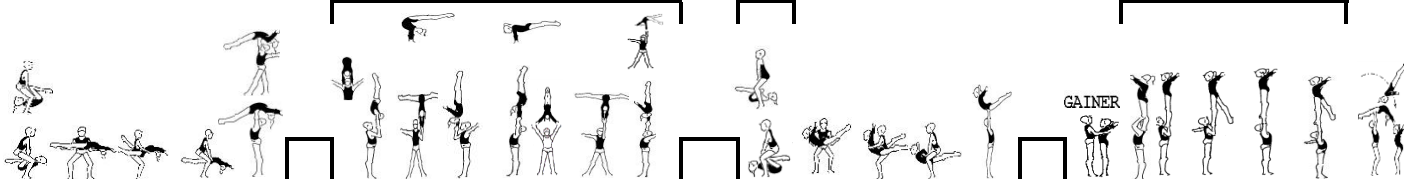
Base turns 180° + 2

top 180°

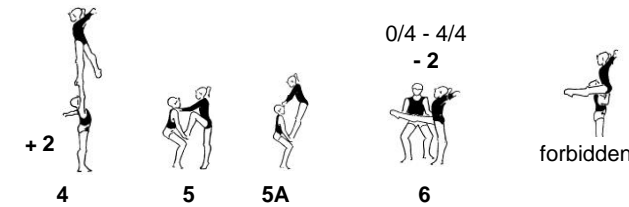
Base turns 180° + 2

Back Salto

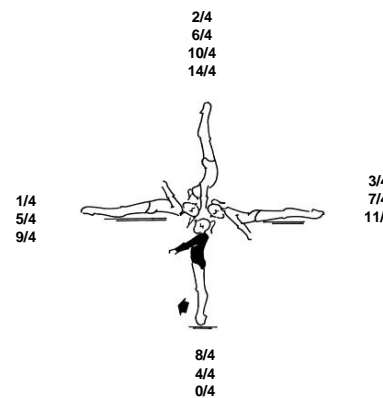
Finish Position



		A	B	C	D	E	Base turns 180° + 2						Base turns 180° + 2											
							F	G	H	I	J	K	L	M	N	O	P		Q	R	S	T	U	V
1 /	1																	0/4	0	1	3	2	4	
	2	4	1	1	1	3							4	2			6	4	2	14	17	17	22	2
	3	4	1	1	1	3							5	3			7	4	3	16	19	19	24	3
	4	4	1	1	1	3	20	24	28	24	28	34	6	4			8	4	4	18	21	21	26	4
5 /	5	10	7	4	8	8	30	36	40	44			16	14			17	8	14	34				8
	6	12	8	5	9	10	30	36	40	44			18	16			19	8	16	44				10
	7																	8	16					10
	8																	8	19					12
2 /	9	16	10	7	11	12	36	42	46	50			26	24			27	12	24					16
	10		15	14														12	34					
	11		17	16														12	44					
	12		17	16														12						
3 /	13		20	19														12						
	14		25	23														12						



		A	B	C	D	E	F	G	H
	Twist	180	360	540	720	900	1080	1260	1440
1	0/4	1	2	4	6	9	12	15	18
2	1/4	1	2	4	6	8	10	12	14
3	2/4	-2	7	5	12	10	18	16	24
4	3/4	1	3	4	6	8	10	12	14
5	4/4	4	8	12	16	20	24	28	32
6	5/4	3	4	6	8	11	14	17	20
7	6/4	0	12	8	16	12	24	20	32
8	7/4	3	5	7	9	12	15	18	22
9	8/4	8	12	16	20	24	28	32	36
10	9/4	4	6	8	11	14	18	22	28
11	10/4								
12	11/4								
13	12/4	12	16	20	24				



Dynamic Elements

top 180°

Pairs

Base turns 180° + 2

Base turns 180° + 2

Front Salto

Finish Position

GAINER

Start

7

8

8/4 + 3

+ 1

9

+ 2

10

11

12

forbidden

		A	B	C	D	E	Base turns 180° + 2						Base turns 180° + 2											
							F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1 / 4	1																		0	1	3	2	4	0
	2		5	1	1	1	4	2	5	11	14	9	15	19	3	5	7	7	3	18	20	20	24	2
	3		5	1	1	1	4	2	5	11	14	9	15	19	4	6	8	8	4	20	22	22	26	3
	4		5	1	1	1	4	2	5	11	14	9	15	19	5	7	9	9	6	22	24	24	30	4
5 / 4	5		9	7	4	8	10	6	10	26	29	33	30	36	4	18	16	20	16	38				10
	6		10	8	5	9	12	6	10	26	29	33	30	36	4	20	18	22	18	48				12
	7							7											18					12
	8							7											22					
9 / 4	9		12	10	7	11	14	10	12	30	33	37	34	40	4	30	28	32	27					16
	10			18	13	21		10	26						11				38					
	11			20	15	23		11	30						11				48					
	12			20	15	23		11							11									
13 / 4	13			24	19	27		11						11										
	14			29	24	32		11	40					11										

	A	B	C	D	E	F	G	H
1	0/4	180	360	540	720	900	1260	1440
2	1/4	1	2	3	6	9	12	18
3	2/4	2	5	7	10	13	16	24
4	3/4	1	3	5	7	9	12	18
5	4/4	4	10	14	18	22	26	34
6	5/4	4	6	8	10	12	15	22
7	6/4	8	12	16	20	24	28	36
8	7/4	6	8	10	12	15	18	25
9	8/4	4	12	16	20	24	28	36
10	9/4	4	7	10	13	16	19	29
11	10/4	8	12	16	20			
12	11/4							
13	12/4	10	20	24	32			

2/4
6/4
10/4
14/4

1/4
5/4
9/4

3/4
7/4
11/4

8/4
4/4
0/4






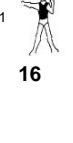


Dynamic Elements

Pairs top 180° Base turns 180° + 2 Base turns 180° + 2

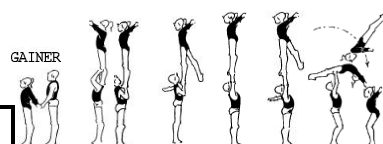


Back Salto

Finish Position

Start











GAINER






		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W				
1 /	1																	0/4	2	3	5	4	6		9			
	2	3	2				2	1	4	7	6	9			3	2	4	6	4	24	28	32	28	34	18	40		
	3	3	2			2	4	1	4	7	6	9			3	2	4	6	4	26	30	34	30	36	20	42		
	4	3	2			2	4	1	4	7	6	9			3	2	4	6	4	28	32	36	32	38	22	44		
5 /	5		7			9	6	7	22	26	26	30	7			9	6	15	12	8	50							
	6		8			11	7	8	24	28	28	32	8			11	8	17	14	8	60							
	7						7													8								
	8						7													8								
9 /	9		10			13	10	10	30	34	34	38	10			18	13	10	19	16	12							
	10		18			18	10	28													12							
	11		20			20	10	38													12							
	12		20			20	10														12							
13 /	13		23			22															12							
	14		28			26		48													12							


	A	B	C	D	E	F	G	H	
Twist	180	360	540	720	900	1080	1260	1440	
1	0/4	2	4	6	9	12	15	18	22
2	1/4	1	2	4	6	8	10	12	14
3	2/4	2	4	6	9	12	15	18	22
4	3/4	1	3	5	7	9	11	13	15
5	4/4	-4	8	4	16	12	24	20	32
6	5/4	2	4	6	8	10	13	16	20
7	6/4	4	8	10	14	16	18	20	26
8	7/4	3	5	7	9	11	14	17	21
9	8/4	-6	16	10	36				
10	9/4	6	12	18	24				
11	10/4	6	12	18	24				
12	11/4								
13	12/4								




16



17

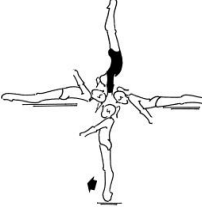


18

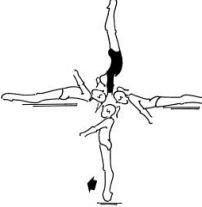


19

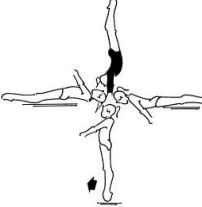
3/4
7/4
11/4



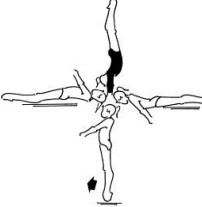
8/4
4/4
0/4



1/4
5/4
9/4



2/4
6/4
10/4
14/4



Dynamic Elements

Pairs

Front Salto

Finish Position

Base turns $180^\circ + 2$ top 180° Base turns $180^\circ + 2$

GAINER

Start

20

21

22

+1

23

+1

+2

+3

24

25

26

27

28

		A	B	C	D	E	Base turns $180^\circ + 2$						top 180°					Base turns $180^\circ + 2$								
							F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	
1 / 4	1																	0/4	1	2	3	5	4	6		9
	2	2	1											4	2	4	7	4	6	20	24	28	20	26	16	32
	3	2	1			2								4	2	4	7	4	8	22	26	30	22	28	18	34
	4	2	1			2								4	2	4	7	4	10	24	28	32	24	30	20	36
5 / 4	5		8			10	9	20	24	24	30	9		12	8	16	17	8	24	40						32
	6		9			12	11	22	26	26	32	11		14	10	18	19	8	28	50					36	
	7																	8								
	8																	8								
9 / 4	9		11			14	13	28	32	32	40	13	20	16	12	20	21	12								
	10		18				32								27			12								
	11		22				42								31			12								
	12		22															12								
14 / 4	13		24															12								
	14		26															12								
	15						42											12								

	A	B	C	D	E	F	G	H
Twist	180	360	540	720	900	1080	1260	1440
1	0/4	2	4	6	9	12	15	18
2	1/4	1	2	4	6	8	11	13
3	2/4	4	4	8	8	13	13	18
4	3/4	1	3	5	7	9	12	14
5	4/4	4	8	12	16	20	24	29
6	5/4	2	4	6	8	10	13	16
7	6/4	4	8	10	14	16	20	22
8	7/4	3	5	7	10	13	17	20
9	8/4	9	18	27	36			
10	9/4	8	16	24	32			
11	10/4	8	16	24	32			
12	11/4							

8/4	
4/4	
0/4	

3/4	
7/4	
11/4	

2/4	
6/4	
10/4	
14/4	

4	
5	

Dynamic Elements

Pairs

Back Salto

Finish Position

Start

29

30

31

32

33

34

Base turns 180° + 2

top 180°

Base turns 180° + 2

GAINER

		A	B	C	D	E	Base turns 180° + 2						top 180°	Base turns 180° + 2											
							F	G	H	I	J	K	L	M	N	O	P	Q		R	S	T	U	V	W
1 / 4	1																		0/4	0	2	4	3	5	
	2	3	1	1	1		3	10	16	22	14	22	28	3	4	2		7	4	2	12	15	14	19	2
	3	3	1	1	1		3	10	16	22	14	22	28	4	5	3		8	4	3	14	17	16	21	3
	4	3	1	1	1	2	3	10	16	22	14	22	28	5	6	4		10	4	4	16	19	18	23	4
5 / 4	5	12	6	2	7	10	14	30	34	38	34			6	17	16		17	5	15	36				9
	6	14	7	3	8	12	14	30	34	38	34			6	19	18		19	6	17	46				11
	7													7					7	17					11
	8													7					8	20					13
9 / 4	9	16	9	5	10	14	18	34	40	44	42			8	27	26		27	8	25					17
	10		16	11										9					9	36					
	11		18	13										10					10	46					
	12		18	13										10					11						
13 / 4	13		22	16										11					12						
	14		27	20										11					12						

	A	B	C	D	E	F	G	H	
1	0/4	1	2	4	6	9	12	15	18
2	1/4	1	2	4	6	8	10	12	14
3	2/4	-2	7	5	12	10	18	16	24
4	3/4	1	3	4	6	8	10	12	14
5	4/4	3	4	6	8	11	14	17	20
6	5/4	3	4	6	8	11	14	17	20
7	6/4	-2	12	8	16	12	24	20	32
8	7/4	3	5	7	9	12	15	18	22
9	8/4	4	8	12	16	20	24	28	32
10	9/4	4	6	8	11	14	18	22	28
11	10/4								
12	11/4								
13	12/4	8	14	20	26				

Twist

180 360 540 720 900 1080 1260 1440

2/4 6/4 10/4 14/4

1/4 5/4 9/4

3/4 7/4 11/4

8/4 4/4 0/4

Dynamic Elements

top 180°

Pairs

Front Salto

Finish Position

Base turns 180° + 2

GAINER

Base turns 180° + 2

		A	B	C	D	E	Base turns 180° + 2						Base turns 180° + 2													
							F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W		
Start	1																		0/4	0	1	3	2	4	0	
	2		2	1	1	1	3	2	5	9	12	8	13	17	3	7	3		9	4	2	14	17	17	22	2
	3		2	1	1	1	3	2	5	9	12	8	13	17	4	8	4		10	4	3	16	19	19	24	3
	4		2	1	1	1	3	2	5	9	12	8	13	17	4	10	5		12	4	4	18	21	21	26	4
35	5		5	8	4	8	6	10	20	23	27	24	30	36	7	20	18		22	8	17	40				11
	6		7	9	5	9	8	10	20	23	27	24	30	36	7	22	20		24	8	19	50				13
	7														7					8	19					13
	8														7					8	23					15
36	9		10	11	7	11	12	12	24	27	31	28	34	40	11	32	30		34	12	28					17
	10			20	15			28							11					12	40					
	11			22	17			32							11					12	50					
	12			22	17										11					12						
37	13			26	21										11					12						
	14			32	27										11					12						
38	15														11					12						
	16														11					12						
39	17														11					12						
	18														11					12						
40	19														11					12						
	20														11					12						
41	21														11					12						
	22														11					12						
42	23														11					12						
	24														11					12						

	A	B	C	D	E	F	G	H	
1	0/4	1	2	3	6	9	12	16	18
2	1/4	1	2	3	6	8	10	12	14
3	2/4	2	5	7	10	13	16	20	24
4	3/4	1	3	5	7	9	12	15	18
5	4/4	4	10	14	18	22	26	30	34
6	5/4	4	6	8	10	12	15	18	22
7	6/4	8	12	16	20	24	28	32	36
8	7/4	6	8	10	12	15	18	21	25
9	8/4	4	12	16	20	24	28	32	36
10	9/4	4	7	10	13	16	19	23	29
11	10/4	8	12	16	20				
12	11/4								
13	12/4	10	20	24	32				

Twist	180	360	540	720	900	1080	1260	1440	
1	0/4	1	2	3	6	9	12	16	18
2	1/4	1	2	3	6	8	10	12	14
3	2/4	2	5	7	10	13	16	20	24
4	3/4	1	3	5	7	9	12	15	18
5	4/4	4	10	14	18	22	26	30	34
6	5/4	4	6	8	10	12	15	18	22
7	6/4	8	12	16	20	24	28	32	36
8	7/4	6	8	10	12	15	18	21	25
9	8/4	4	12	16	20	24	28	32	36
10	9/4	4	7	10	13	16	19	23	29
11	10/4	8	12	16	20				
12	11/4								
13	12/4	10	20	24	32				

2/4
6/4
10/4
14/4

1/4
5/4
9/4

3/4
7/4
11/4

8/4
4/4
0/4

Dynamic Elements

Pairs

Back Salto

Finish Position

Start

GAINER

top 180°

		A	B	C	D	E	F						L	M	N	O	P	Q					
1 / 4	1							2	3	2	2	3	4	3					4	2	0	0	2
	2	1	3	5	5	8		4	3	2	3	4	14					8	5		4	7	
	3	1	3	5	5	8		6	4	2	3	4	14					10	7		5	9	
	4	1	3	5	5	8		12	7	7	10	12	28						9		6	11	
5 / 4	5	5	14	17	16	21	5	14	9	9	12	14	28					22	20			22	
	6	6	16	19	18	23	6						28					24	22			24	
	7																		22				
	8							16	15	11	14	16	34						25				
9 / 4	9	8	18	21	20	25	8												30				
	10	18							18	14													
	11	20							22	18													
	12	20																					
13 / 4	13	23																					
	14	28						32	26														
16 / 4	15	34																					
	16	44																					

	A	B	C	D	E	F	G	H	
1	0/4	180	360	540	720	900	1080	1260	1440
2	1/4	0	2	4	6	8	10	14	18
3	2/4	1	2	3	4	6	8	10	12
4	3/4	1	6	10	14	18	22	26	30
5	4/4	2	8	10	12	15	18	21	24
6	5/4	2	8	10	12	16	20	24	28
7	6/4	3	5	7	9	11	14	17	20
8	7/4	3	8	12	16	20	24	30	34
9	8/4	3	10	13	16	20	22	26	32
10	9/4	6	12	18	24				
11	10/4								
12	11/4								
13	12/4								

	2/4	6/4	10/4	14/4	3/4	7/4	11/4	8/4	4/4	0/4
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										

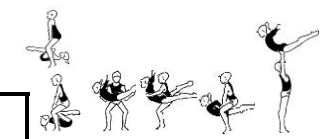
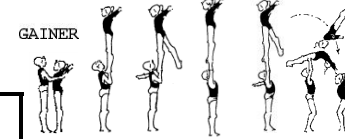
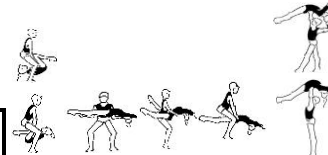
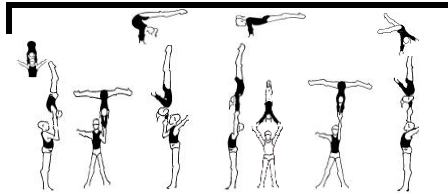
Dynamic Elements

top 180°

Pairs

Front Salto

Finish Position



Start



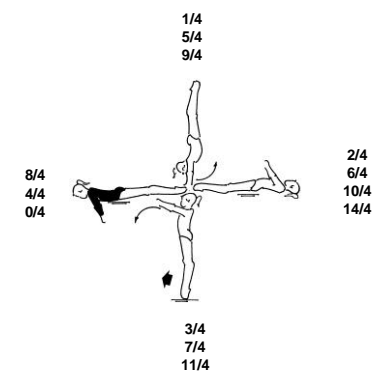
47



48

		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	0/4	R	S	T	U	V	
1 / 4	1							2					3						4	2	0	0	0	2	
	2	4	6	9	8	11	14	4	3	/	/	4	4	8	11	11	15	4	8	6	3	7	10		
	3	4	6	9	8	11	14	5	4	/	/	5	4	10	13	13	17	4	10	8	4	9	12		
	4	6	8	9	8	11	14	7	5	/	/	6	6	12	15	15	19	4	12	10	6	11	14		
5 / 4	5	16	20	24	22	26	32	6	14	12	/	/	16	7	16	40				8	26	22			
	6	16	20	24	22	26	32	6	16	14	/	/	18	7	18	50				8	28	24			
	7							6			/	/		7						8					
	8							6			/	/		7						8					
	9	20	24	28	26	32	38	6	20	18	/	/	22	7	27					8					
9 / 4	10							10			/	/		11						12					
	11							10			/	/		11						12					
	12							10			/	/		11						12					
	13							10			/	/		11						12					

	A	B	C	D	E	F	G	H
Twist	180	360	540	720	900	1080	1260	1440
1	0/4	1	2	3	4	5	6	8
2	1/4	0	4	7	10	13	16	19
3	2/4	1	2	3	4	6	8	10
4	3/4	2	4	6	8	12	16	20
5	4/4	2	8	10	12	15	19	22
6	5/4	2	5	8	11	14	18	19
7	6/4	3	5	7	9	12	15	18
8	7/4	3	8	12	16	20	24	28
9	8/4	3	11	14	17	21	25	29
10	9/4							
11	10/4							
12	11/4							
13	12/4							



Dynamic Elements

Pairs

Back Salto

Finish Position

top 180°

GAINER

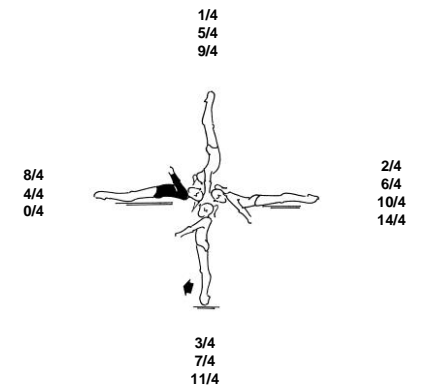
Start

49

50

		A	B	C	D	E	F	top 180°					GAINER												
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V		
1 / 4	1																		0/4	0	0	0	0	2	
	2	4	5	7	5	10	14	3	1	/	/	3	3 / 4	1	8	10	10	14	/	4 / 4	5	3	1	5	5
	3	4	5	7	5	10	14	4	1	/	/	3	3 / 4	1	10	12	12	16	/	4 / 4	6	4	2	6	6
	4	4	5	7	5	10	14	5	1	/	/	3	3 / 4	2	12	15	15	18	/	4 / 4	8	6	3	8	8
5 / 4	5	14	17	21	16	21	27	10	6	/	/	12	7 / 4	14	34				10	8 / 4	14	18	12	20	20
	6	16	19	23	18	23	29	12	8	/	/	14	7 / 4	16	44				12	8 / 4	15	20	14	22	
	7									/	/		7 / 4							8 / 4	15				
	8									/	/		7 / 4							8 / 4					
9 / 4	9	18	21	25	20	25	31	14	10	/	/	16	11 / 4	24					18	12 / 4					
	10									/	/		11 / 4							12 / 4					
	11									/	/		11 / 4							12 / 4					
	12									/	/		11 / 4							12 / 4					
	13									/	/		11 / 4							12 / 4					
	14									/	/		11 / 4							12 / 4					

	A	B	C	D	E	F	G	H	
Twist	180	360	540	720	900	1080	1260	1440	
1	0/4	1	2	3	4	5	6	8	10
2	1/4	0	4	7	10	13	16	19	23
3	2/4	1	2	3	4	6	8	10	12
4	3/4	2	4	6	8	12	16	20	24
5	4/4	2	4	6	8	11	14	17	20
6	5/4	2	5	8	11	14	18	22	26
7	6/4	3	5	7	9	11	14	17	20
8	7/4	3	8	12	16	20	24	28	32
9	8/4	3	6	9	12	16	18	22	28
10	9/4								
11	10/4								
12	11/4								
13	12/4								



Dynamic Elements

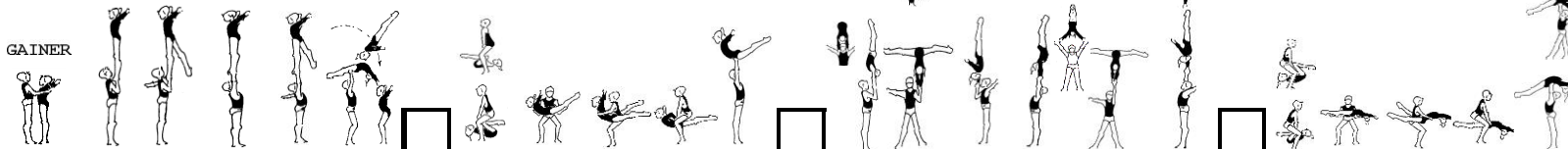
top 180°

Pairs

Front Salto

Finish Position

GAINER



Start



51



52



OR



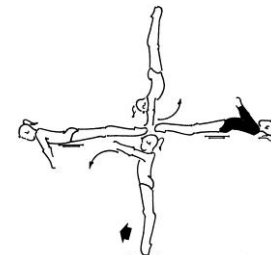
53



54

		A	B	C	D	E	F			G	H	I	J	K			L	M	N	O	P	Q			R	S	T	U	V					
1 / 4	1							2 / 4						3 / 4										0/4 / 4	1	1				2				
	2	0	3	5	5	7			3	2	1	1	3		2	7	10	14	13	20	6	4					6							
	3	0	3	5	5	7			4	3	1	1	4		3	7	10	14	13	20	7	5					7							
	4	0	3	5	5	7			4	3	1	1	4		4	10	13	17	16	23	9	7					9							
5 / 4	5	4	13	16	15	20	6	6 / 4	12	8	5	9	12	7 / 4	12	22	26	29	26	38	8 / 4	24	20				22							
	6	5	15	18	17	22	7		14	10	7	11	14		12	24	28	31	28	38		26	22				24							
	7																																	
	8																																	
	9	7	17	20	19	24	9		16	14	9	15	16		14	26	30	33	30	40		35	31											
9 / 4	10	20						10 / 4	26	24	18			11 / 4																				
	11	22							28	26	20																							
	12	22							28	26	20																							
	13	26							32	28	22																							
	14	31							37	33	27																							
13 / 4	15	38						A B C D E F G H																										
	16	48						Twist 180 360 540 720 900 1080 1260 1440																										
								1	0/4	1	2	3	4	5	6	8	10																	
								2	1/4	1	3	5	7	10	13	16	19																	
								3	2/4	1	2	3	4	6	8	10	12																	
								4	3/4	2	4	6	9	12	15	19	23																	
								5	4/4	2	8	10	12	15	18	21	24																	
								6	5/4	2	5	7	9	13	17	21	25																	
								7	6/4	3	5	7	9	12	15	18	21																	
								8	7/4	4	10	14	18	22	24	30	36																	
								9	8/4	3	11	14	17	21	25	29	35																	
								10	9/4	4	10	14	16																					
								11	10/4	6	14	22	30																					
								12	11/4																									
								13	12/4																									

2/4
6/4
10/4
14/4



8/4
4/4
0/4

3/4
7/4
11/4

1/4
5/4
9/4

Dynamic Elements

Pairs

top 180°

Base turns 180° + 2

Base turns 180° + 2

Back Salto

Finish Position Position

GAINER

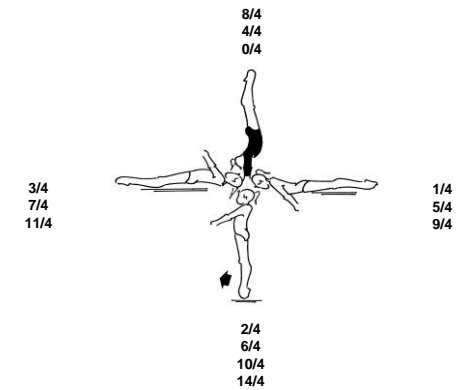
Start

55

56

		top 180°					Base turns 180° + 2						Base turns 180° + 2												
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V		
1 / 4	1																	0/4	5	6	8	10	12	15	
	2	2					1	6	8	9	12		3	5	4	2	4	5	4	22	26	30	26	32	38
	3	2					1	6	8	9	12		4	6	5	3	5	6	4	24	28	32	28	34	40
	4	2	2			3	1	6	8	9	12		5	7	6	4	6	7		26					
5 / 4	5	9	8			10	9	20																	
	6	10	9			12	10	22																	
	7																								
	8																								
9 / 4	9	13	11			14	12	28																	
	10																								
	11																								
	12																								

		A	B	C	D	E	F	G	H
1	Twist	180	360	540	720	900	1080	1260	1440
2	0/4	2	4	6	9	12	15	18	22
3	1/4	1	2	4	6	8	10	12	14
4	2/4	2	4	6	9	12	15	18	22
5	3/4	1	3	5	7	9	11	13	15
6	4/4	-4	8	4	16	12	24	20	32
7	5/4	2	4	6	8	10	13	16	20
8	6/4	5	7	9	11	13	16	19	23
9	7/4								
10	8/4								
11	9/4								
12	10/4								
13	11/4								
14	12/4								






Dynamic Elements

Pairs

Front Salto

Finish Position

Start  57  58 

Base turns 180° + 2 top 180° Base turns 180° + 2

		A	B	C	D	E	Base turns 180° + 2					top 180°					Base turns 180° + 2								
							F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V		
1 / 4	1																	0/4	5	6	8	10	12	15	
	2	2	1				2	7	9	10	14		3	6	4	2	4	6	4 / 4	10	14	18	14	20	26
	3	2	1				1	7	9	10	14		3	6	4	2	4	6	4 / 4	12	16	20	16	22	28
	4	2	1			3	1	7	9	10	14		3	6	4	2	4	6	4 / 4	14	18	22	18	24	30
5 / 4	5	8	7			8	6	8	20	22	22	28	8	7	12	10	7	12	15	8 / 4	30				
	6	10	9			10	6	10	22	26	26	30	10	7	14	12	9	14	17	8 / 4	40				
	7						6							7						8 / 4					
	8						6							7						8 / 4					
9 / 4	9	14	12			14	6	12	28	30	30	38	12	7	16	14	11	16	19	8 / 4					
	10	19	17				6	26						7	33	30	26	29	33	8 / 4					
	11	23	21				6	36						7	37	34	30	31	37	12 / 4					
	12		21				6							7						12 / 4					
	13		23				6							7						12 / 4					
14		25				6							7						12 / 4						
15						6							7						12 / 4						
							15 / 4							15 / 4	48										

	A	B	C	D	E	F	G	H
Twist	180	360	540	720	900	1080	1260	1440
1	0/4	2	4	6	9	12	15	18
2	1/4	1	2	4	6	8	11	13
3	2/4	4	4	8	8	13	13	18
4	3/4	1	3	5	7	9	12	14
5	4/4	4	8	12	16	20	24	29
6	5/4	2	4	6	8	10	13	16
7	6/4	5	7	9	12	15	19	22
8	7/4	3	5	7	10	13	17	20
9	8/4	9	18	27	36			
10	9/4	8	16	24	32			
11	10/4	8	16	24	32			
12	11/4							
13	12/4							

