

Chief Recorder Operating Manual 2019 Edition

Index

- Preparing for an event (at home) 2
 - Organization
 - Obtaining information
 - Scoring program
 - Evaluation program
 - Equipment needed for the competition
 - Documents/files to bring
 - Preparations in scoring program
- Preparations (on site) 3
 - Changes
 - Establish a distribution list
 - Create entry lists
 - Passport check
 - Drawings for start order 3-4
 - Preliminary start lists 4
 - Final Start list
 - Prepare all documentation for the session
- During the session 5
 - Remember
 - Calculating scores
 - Figure competition
 - Free Routine 6
 - Technical Routine 6-7
 - Final result 7
- After the session
- After the event

Appendix I

- Calculation examples Figure competitions 8-9
- Calculation examples Free Routines 10
- Calculation examples Technical Routines 11-12

Appendix II

- For non-FINA/LEN competitions 13-16

Chief Recorder Operating Manual 2019 Edition

A. Preparing for an event (at home)

1. Organization
 - i. Management Committee appoints AS 21:
 1. Referee
 2. Assistant Referee
 3. Chief Recorder
 - a. Duties of the Chief Recorder
 - i. Draw for order of appearance in all sessions.
 - ii. Distribution of participation, start and result lists to all concerned, including those responsible for informing press and public.
 - iii. Recording changes of competitors prior each session.
 - iv. Checking the electronic scoring system.
 - v. Ensuring the accuracy of recording the scores.
 - vi. Checking the computer results.
 - vii. Overseeing preparation of result lists for distribution.
 4. Sound Center Manager
 5. Announcer
2. Obtaining information
 - i. Get to know the rules to be used in the competition
 - ii. Take part of the invitation for the event
 - iii. Take part of the program for the event
 - iv. Request all entry forms from each federation/club
 - v. Contact Organizing Committee (OC) for information about secretary staff
3. Scoring program
 - i. In FINA/LEN competitions two separate systems shall be used to calculate scores. One system is the official system and a second system is backup and check system. Electronic system from Omega/MicroPlus, or other external vendor, can be the primary system in the competition. The official system is the only one to produce official scores.
4. Evaluation program
 - i. In FINA/LEN competitions the official scoring program shall be supplemented with an evaluation program.
5. Equipment needed for the competition
 - i. Computer, one for each scoring program
 - ii. Printer, preferable high speed and single used by the official computer
6. Documents/files to bring
 - i. FINA rule book
 - ii. Invitation for the event
 - iii. Entry forms from all participating federations/clubs
 - iv. Information about all participating judges
 - v. Scoring program software
 - vi. Evaluating program software
7. Preparations in scoring program
 - i. Insert all swimmers to the scoring program
 - ii. Insert all judges to the scoring program
 - iii. Prepare preliminary start lists

Chief Recorder Operating Manual 2019 Edition

B. Preparations (on site)

1. Changes
 - i. Contact OC to check for any changes (entries, any pre-swimmers, organizational changes, etc.)
 - ii. Contact Referee for any changes (judges schedules, ways to work during competition, etc.)
 - iii. Contact Team leaders for any changes (participants, spellings, etc.)
2. Establish a distribution list for members that needs start lists, results, etc.
3. Create an entry list by nation, showing
 - i. Nation
 - ii. Participants
 - iii. Date of Birth
 - iv. Event
4. Create an entries overview by event, showing
 - i. Nations
 - ii. Event the nations are participating in
 - iii. Total amount of swimmers in the national teams
5. Passport check
 - i. Prepare forms for ID control of all competitors
 - ii. After ID control is completed
 1. Check all spelling of competitors name is correct
 2. Check that date of birth of the competitors is correct
 3. If any irregularities, Referee has to approve before any changes are made
6. Drawings for start order
 - i. Figure draw AS 8.3-8.4
 1. Figure group draw should be manually (shall be done 18-72 h before session starts)
 2. Draw of start order can be automatic or by hand (start order shall be drawn at least 24 h before session starts)
 3. If automatic
 - a. Prepare 3-10 start lists with random start order of the competitors
 - b. Make draw by hand what start list to be used
 - c. Destroy all other start lists
 4. If by hand
 - a. Prepare the draw with all competitors name and start order
 - b. Participate and monitor the draw
 - c. Note the results of the draw

Chief Recorder Operating Manual 2019 Edition

- ii. Preliminary Routine sessions (or Final if no preliminaries) AS 13.7
 1. Draw of start order can be automatic or by hand (start order shall be drawn at least 18 h before session starts)
 2. The order of draw shall be Teams, Free Combinations, Highlight Routine, Duet, Mixed Duet and Solo routines. For competitions with both Technical and Free Routines, the draw for the Technical Routine events shall first be held followed by the Free Routine Draw. (Team Technical, Team Free, Free Combination, etc.)
 3. The federation/club drawing start number one in preliminary routines shall be exempted from start number one in all remaining preliminary sessions.
 - a. If automatic
 - i. Prepare 3-10 start lists with random start order of the competitors
 - ii. Make draw by hand what start list to be used
 - iii. Destroy all other start lists
 - b. If by hand
 - i. Prepare the draw with all competitors name and start order
 - ii. Participate and monitor the draw
 - iii. Note the results of the draw
- iii. Final sessions (approx. 30 minutes after each preliminary routine is done) AS 13.8
 1. Draw of start order shall be made by hand (start order for finals shall be drawn directly after preliminaries are ended)
 2. First draw placed 1-6 in the preliminaries, then placed 7-12.
 3. The higher qualifier in each group shall draw first.
 4. If there is a tie for placement within the group, there should be a draw for whom to draw first. If there is a tie for places 6 and 7, they will form a group of their own.
 - a. Prepare the draw with all competitors name and start order
 - b. Participate and monitor the draw
 - c. Note the results of the draw
7. Preliminary start lists (are to be done right after the draw)
 - i. Make preliminary start lists for all events
 - ii. Have them checked and signed by the Referee
 - iii. Distribute copies of the signed result list according to distribution list
8. Final Start list (are to be done 2 hours prior to each start of the event)
 - i. Enter actual judges to judge the event, provided by the referee
 - ii. Check for any changes of reserves, provided by the team leaders
 - iii. Print new start lists and have them compared with the draw result together with the Referee.
 - iv. The Referee shall sign the new start lists
 - v. Distribute copies of the signed result list according to distribution list
9. Prepare all documentation for the session
 - i. Make sure all score sheets, judges papers, start lists etc is ready for all officials.
 - ii. Meet the secretariat employers (scorers, time keepers, clerk of course etc) to make sure everybody knows what to do and has all they need to do their job.

Chief Recorder Operating Manual 2019 Edition

C. During the session in FINA/LEN competitions (for non-FINA/LEN competitions, see Appendix II)

1. Remember

- i. Check all score recorders, time keepers, music master and announcer are ready and have the correct start list
- ii. Inform the referee about any possible penalty situation and record all decisions
- iii. Collect all score sheets and judges slips for safe keeping
- iv. Control each result
- v. Be ready to give final scores to the announcer directly after session ends

2. Calculating scores

i. Figure competition

1. 7 judges

a. AS 12.1

- i. *Highest and lowest awards are cancelled (one of each)*
- ii. *Remaining awards are added (rounding to one decimal).*
- iii. *The sum of the remaining awards is divided by the same number of awards, remaining after high/low is cancelled, resulting in an average (no rounding of the result).*
- iv. *The average is multiplied by the degree of difficulty for the figure to obtain the score for each figure (rounding to four decimals).*

b. AS 12.2

- i. *All figure scores shall be added and then divided by the total of degree of difficulty of the figure group and then multiplied with 10 (rounding to four decimals).*
- ii. *And then the any penalties (if any, No penalties according to FINA rules) shall be deducted to obtain the final figure score (rounding to four decimals).*

c. AS 12.3

- i. *The final figure score shall be used with routine session results to obtain total score.*
 1. *For duets and teams each of the swimming competitor results shall be added and divided by the amount of swimmers to find out the average (round of to four decimals).*
 2. *If the reserve take place as a swimmer the reserves score shall be used instead.*
 3. *If there is more than one reserve, the higher figure score is used to determine the total score for the team.*
 4. *If both reserves are swimming, both reserves figure scores are used to determine the total score for the team.*

ii. Penalties in Figure session

a. AS 11.1

- i. *If a competitor does not perform the announced figure the referee or assistant referee shall inform the result will be zero for that figure*

Chief Recorder Operating Manual 2019 Edition

iii. Free Routine

1. 5 judges on 3 panels (Execution, Artistic Impression and Difficulty)

a. AS 19.1

- i. *Highest and lowest awards are cancelled (one of each) from each panel*
- ii. *Remaining 3 awards are added for each panel.*
- iii. *The Execution score and the Difficulty score is the sum of the remaining 3 awards in each panel (rounding to four decimal).*
- iv. *The Artistic Impression score is the sum of the remaining 3 awards, divided by 3 and multiplied by 4 (rounding to four decimal).*
- v. *The total score of the Free Routine shall be the sum of the score from each panel, less any penalty deductions from AS 18.*

iv. Penalties in Free Routine

1. *All penalties according to AS 18 shall be deducted from the total routine score.*

v. Technical Routine

1. 5 judges on 3 panels (Execution, Impression and Elements)

a. AS 19.2

- i. *Execution panel: Highest and lowest awards are cancelled (one of each). Remaining 3 awards are added (rounding to four decimal). Deduct any penalties for AS 18.4.5 (Teams).*
- ii. *Impression panel: Highest and lowest awards are cancelled (one of each). Remaining 3 awards are added (rounding to four decimal).*
- iii. *Element panel: For each of the required elements the highest and lowest awards are cancelled (one of each). The sum of the remaining awards is divided by the same number of awards remaining after high/low is cancelled resulting in an average (no rounding of the result). Each element average is multiplied by the degree of difficulty for that element (round of to four decimal).*
All element scores shall be added to a Raw Total (no rounding of the result). This total shall be divided by the total degree of difficulty for all elements and then multiplied by 10 (no rounding of the result). The result shall then be multiplied by 0,4 and deducted any penalties four AS 18.4.6 (Solo, Duets and Mixed Duets) to result in a score for Elements (round of to four decimal).
- iv. *The total score of the Technical Routine shall be the sum of the score from each panel, less any penalty deductions from AS 18.*

Chief Recorder Operating Manual 2019 Edition

vi. Penalties and other matters in Technical Routines

- a. If one or more judges on the Element Panel has entered a zero for any element, or portion of an element the referee will review the official video.
 - i. If the required element has been executed correctly, then the average of the awards of the other remaining judges shall be computed and shall be considered as the missing award(s). (**round of to one decimal**)
 - ii. If the required element has not been performed correctly, the referee will instruct the Chief Recorder to record zeros for that element for each judge.
- b. Half a point penalty shall be deducted from Execution Score for violations of Duet/Team/Highlight Required Elements 6, 7, 8 and 9 (Appendix VI).
- c. Half a point penalty shall be deducted from the Element Score in Solos, Duets and Mixed Duets if the elements is not performed parallel to the sides of the pool where the judges have been placed.
- d. All other penalties, according to AS 18, shall be deducted from the total routine score.

vii. Final result

1. AS 20.2

- a. The final result is determined by adding the final score of each performed session. If both preliminary and final sessions are held, the score from final session shall be used to calculate the final result (**round of to four decimal**).
- b. In case of the same final result a tie shall be declared for the particular place.
- c. If a decision has to be made to go to finals the following procedure will be used:
 - i. Solo, Duet, Mixed Duet and Team:
The higher total Free Routine score will decide. If they are the same, the Artistic Impression score of the free routine will decide. If they are the same, the Execution score will decide. If they are the same, the Element score will decide.
 - ii. Free Combination and Highlight Routine:
The higher Artistic Impression score will decide. If they are the same, the Execution score will decide.

D. After the session

1. Establish the result from each session
2. Control the results with the backup system
3. Print out and ensure The Referee sign the results
4. Distribute copies of the signed result list according to distribution list
5. Establish and print out basis for evaluation and give to the evaluator

E. After the event

1. Establish a total result, including detailed results from all judges
2. Control total results with backup system
3. If any Cup of the event, sum all results for the Cup
4. Ensure The Referee has signed the total results
5. Distribute copies of the signed result list according to distribution list
6. Don't forget to thank all secretary participants

Chief Recorder Operating Manual 2019 Edition

APPENDIX I

Calculation examples Figure competitions

Figure competition with 7 judges

Figure session		Judges							Sum-Hi/Lo	Average	DD	Score	Penalt.
#	Fig.	1	2	3	4	5	6	7					
1	308	4,1	4,7	5,2	4,5	4,5	4,5	4,5	22,7	4,5400	2,8	12,7120	
2	355g	5,5	5,3	5,1	5,3	5,3	5,3	5,3	26,5	5,3000	2,6	13,7800	2,0
3	330c	5,9	6,4	6,2	6,1	6,2	6,2	6,2	30,9	6,1800	3,0	18,5400	
4	154	7,1	6,9	6,9	7,0	7,0	7,0	7,0	34,9	6,9800	2,8	19,5440	
											11,2	Total:	55,6571

Figure competition with 6 judges

Figure session		Judges						Sum-Hi/Lo	Average	DD	Score	Penalt.
#	Fig.	1	2	3	4	5	6					
1	308	4,1	4,7	5,2	4,5	4,5	4,5	18,2	4,5500	2,8	12,7400	
2	355g	5,5	5,3	5,1	5,3	5,3	5,3	21,2	5,3000	2,6	13,7800	2,0
3	330c	5,9	6,4	6,2	6,1	6,2	6,2	24,7	6,1750	3,0	18,5250	
4	154	7,1	6,9	6,9	7,0	7,0	7,0	27,9	6,9750	2,8	19,5300	
										11,2	Total:	55,6563

Figure competition with 5 judges + 1 average judge

Figure session		Judges						Sum-Hi/Lo	Average	DD	Score	Penalt.
#	Fig.	1	2	3	4	5	6 avr					
1	308	4,1	4,7	5,2	4,5	4,5	4,6	18,3	4,5750	2,8	12,8100	
2	355g	5,5	5,3	5,1	5,3	5,3	5,3	21,2	5,3000	2,6	13,7800	2,0
3	330c	5,9	6,4	6,2	6,1	6,2	6,2	24,7	6,1750	3,0	18,5250	
4	154	7,1	6,9	6,9	7,0	7,0	7,0	27,9	6,9750	2,8	19,5300	
										11,2	Total:	55,7188

Figure competition with 5 judges

Figure session		Judges					Sum-Hi/Lo	Average	DD	Score	Penalt.
#	Fig.	1	2	3	4	5					
1	308	4,1	4,7	5,2	4,5	4,5	13,7	4,5667	2,8	12,7867	
2	355g	5,5	5,3	5,1	5,3	5,3	15,9	5,3000	2,6	13,7800	2,0
3	330c	5,9	6,4	6,2	6,1	6,2	18,5	6,1667	3,0	18,5000	
4	154	7,1	6,9	6,9	7,0	7,0	20,9	6,9667	2,8	19,5067	
									11,2	Total:	55,6548

Chief Recorder Operating Manual 2019 Edition

Figure competition with 4 judges + 1 average judge

Figure session		Judges											
#	Fig.	1	2	3	4	5 avr		Sum-Hi/Lo	Average	DD	Score	Penalt.	
1	308	4,1	4,7	5,2	4,5	4,6		13,8	4,6000	2,8	12,8800		
2	355g	5,5	5,3	5,1	5,3	5,3		15,9	5,3000	2,6	13,7800	2,0	
3	330c	5,9	6,4	6,2	6,1	6,2		18,5	6,1667	3,0	18,5000		
4	154	7,1	6,9	6,9	7,0	7,0		20,9	6,9667	2,8	19,5067		
										11,2	Total:	55,7381	

Figure competition with 3 judges

Figure session		Judges											
#	Fig.	1	2	3				Sum	Average	DD	Score	Penalt.	
1	308	4,1	4,7	5,2				14,0	4,6667	2,8	13,0667		
2	355g	5,5	5,3	5,1				15,9	5,3000	2,6	13,7800	2,0	
3	330c	5,9	6,4	6,2				18,5	6,1667	3,0	18,5000		
4	154	7,1	6,9	6,9				20,9	6,9667	2,8	19,5067		
										11,2	Total:	55,9048	

Chief Recorder Operating Manual 2019 Edition

Calculation examples Free Routine sessions

Free Routine – 3 panels, 15 judges (or 1 panel, 5 judges)

Free Routine	Judges									
Fig.	1	2	3	4	5	Sum-Hi/Lo	Average	WT	Score	
EXEC	8,6	8,3	9,0	8,5	8,5	25,6	8,5333	30%	25,6000	
ART IMP	8,6	8,3	8,5	8,4	8,5	25,4	8,4667	40%	33,8667	
DIFF	8,2	8,3	8,5	8,4	8,4	25,1	8,3667	30%	25,1000	
									S:a	84,5667
									Penalt.	1,0
									Total	83,5667

Free Routine – 3 panels, 12 judges (or 1 panel 4 judges) + 1 average judge

Free Routine	Judges									
Fig.	1	2	3	4	5 avr	Sum-Hi/Lo	Average	WT	Score	
EXEC	8,6	8,3	9,0	8,5	8,6	25,7	8,5667	30%	25,7000	
ART IMP	8,6	8,3	8,5	8,4	8,5	25,4	8,4667	40%	33,8667	
DIFF	8,2	8,3	8,5	8,4	8,4	25,1	8,3667	30%	25,1000	
									S:a	84,6667
									Penalt.	1,0
									Total	83,6667

Free Routine – 3 panels, 9 judges (or 1 panel 3 judges)

Free Routine	Judges									
Fig.	1	2	3			Sum	Average	WT	Score	
EXEC	8,6	8,3	9,0			25,9	8,6333	30%	25,9000	
ART IMP	8,6	8,3	8,5			25,4	8,4667	40%	33,8667	
DIFF	8,2	8,3	8,5			25,0	8,3333	30%	25,0000	
									S:a	84,7667
									Penalt.	1,0
									Total	83,7667

Chief Recorder Operating Manual 2019 Edition

Calculation examples Technical Routine sessions

Technical Routine – 3 panels, 15 judges

		Judges									
Technical routine		1	2	3	4	5	Total-Hi/Lo	Aver.	Factor	Exec.lass 18.3	
Execution / Synchro		8,5	8,7	8,6	8,8	8,6	25,9	8,6333	30%	25,9000	
Impression		8,6	8,3	8,8	8,4	8,4	25,4	8,4667	30%	25,4000	
										Impr.	
										AS 18.4.5 Penalty	
Elements		DD	1	2	3	4	5	Total-Hi/Lo	Aver.	Calc	
		2,1	8,2	7,8	8,1	7,9	8,1	24,1	8,0333	16,8700	
		2,6	8,4	8,5	8,8	8,6	8,6	25,7	8,5667	22,2733	
		3,1	8,6	8,4	8,8	8,5	8,7	25,8	8,6000	26,6600	
		2,4	8,5	8,3	8,5	8,4	8,4	25,3	8,4333	20,2400	
		1,9	8,3	8,7	8,9	8,5	8,6	25,8	8,6000	16,3400	
		12,1									AS 18.4.6 Penalty
										Raw total	
										Divide by total DD * 10	
										Factor	
										Total:	
										85,1457	

Technical Routine – 3 panels, 12 judges (or 2 panel 8 judges) + 1 average judge

		Judges									
Technical routine		1	2	3	4	5 avr	Total-Hi/Lo	Aver.	Factor	Exec.lass 18.3	
Execution / Synchro		8,5	8,7	8,6	8,8	8,7	26,0	8,6667	30%	26,0000	
Impression		8,6	8,3	8,8	8,4	8,5	25,5	8,5000	30%	25,5000	
										Impr.	
										SS 18.3 Penalty	
Elements		DD	1	2	3	4	5	Total-Hi/Lo	Aver.	Calc	
		2,1	8,2	7,8	8,1	7,9	8,0	24,0	8,0000	16,8000	
		2,6	8,4	8,5	8,8	8,6	8,6	25,7	8,5667	22,2733	
		3,1	8,6	8,4	8,8	8,5	8,6	25,7	8,5667	26,5667	
		2,4	8,5	8,3	8,5	8,4	8,4	25,3	8,4333	20,2400	
		1,9	8,3	8,7	8,9	8,5	8,6	25,8	8,6000	16,3400	
		12,1									AS 18.4.6 Penalty
										Raw total	
										Divide by total DD * 10	
										Factor	
										Total:	
										85,2884	

Chief Recorder Operating Manual 2019 Edition

Technical Routine – 3 panels, 9 judges (or 2 panel 6 judges) + 1 average judge

		Judges									
Technical routine		1	2	3			Total	Aver.	Factor	Exec.lass 18.3	
Execution / Synchro		8,5	8,7	8,6			25,8	8,6000	30%	25,8000	
							SS 18.3 Penalty			Impr.	
Impression		8,6	8,3	8,8			25,7	8,5667	30%	25,7000	
Elements		DD	1	2	3		Total-Hi/Lo	Aver.	Calc		
	2,1	8,2	7,8	8,1			24,1	8,0333	16,8700		
	2,6	8,4	8,5	8,8			25,7	8,5667	22,2733		
	3,1	8,6	8,4	8,8			25,8	8,6000	26,6600		
	2,4	8,5	8,3	8,5			25,3	8,4333	20,2400		
	1,9	8,3	8,7	8,9			25,9	8,6333	16,4033	AS 18.4.6 Penalty	
	12,1										
								Raw total	102,4467		
								Devide by total DD * 10	84,6667	Elements	
								Factor	40%	33,8667	
								Total:		85,3667	

Chief Recorder Operating Manual 2019 Edition

APPENDIX II

During the session for non-FINA/LEN competitions

1 Remember

- viii. Check all score recorders, time keepers, music master and announcer are ready and have the correct start list
- ix. Inform the referee about any possible penalty situation and record all decisions
- x. Collect all score sheets and judges slips for safe keeping
- xi. Control each result
- xii. Be ready to give final scores to the announcer directly after session ends

2 Calculating scores

xiii. Figure competition

1. 6-7 judges

a. AS 12.1

- i. Highest and lowest awards are cancelled (one of each)*
- ii. Remaining awards are added (rounding to one decimal).*
- iii. The sum of the remaining awards is divided by the same number of awards, remaining after high/low is cancelled, resulting in an average (no rounding of the result).*
- iv. The average is multiplied by the degree of difficulty for the figure to obtain the score for each figure (rounding to four decimals).*

b. AS 12.2

- i. All figure scores shall be added and then divided by the total of degree of difficulty of the figure group and then multiplied with 10 (rounding to four decimals).*
- ii. And then the any penalties (if any, No penalties according to FINA rules) shall be deducted to obtain the final figure score (rounding to four decimals).*

c. AS 12.3

- i. The final figure score shall be used with routine session results to obtain total score.*
 - 1. For duets and teams each of the swimming competitor results shall be added and divided by the amount of swimmers to find out the average (round of to four decimals).*
 - 2. If the reserve take place as a swimmer the reserves score shall be used instead.*
 - 3. If there is more than one reserve, the higher figure score is used to determine the total score for the team.*
 - 4. If both reserves are swimming, both reserves figure scores are used to determine the total score for the team.*

Chief Recorder Operating Manual 2019 Edition

2. 5 judges (Non-FINA/LEN competitions)
 - a. If only 5 judges are available you can choose to calculate with these 5 judges awards or to add an extra “average” judge award to obtain FINA-standard 6 judges.
 - b. If no average judge is used, calculate according to AS12.1-3.
 - c. If one average judge is used, the average judge award shall be calculated by adding all five actual judge awards and divided by five (**round of to one decimal**).
 - d. The average shall be calculated before highest and lowest awards are cancelled.
 - e. After that calculation according to AS 12.1-3 begins, including the average judge award.
 3. 4 judges (Non-FINA/LEN competitions)
 - a. If only 4 judges are available one extra “average” judge shall be added.
 - b. The awards from the average judge shall be calculated by adding all four actual judge awards and divided by four (**round of to one decimal**).
 - c. The average shall be calculated before highest and lowest awards are cancelled.
 - d. After that calculation according to AS 12.1-3 begins, including the average judge award.
 4. 3 judges (Non-FINA/LEN competitions)
 - a. If only 3 judges are available no extra “average” judge shall be added and no cancellation of highest/lowest awards shall be done.
 - b. All three judge awards is to be used for calculation according to AS 12.1-3.
- xiv. Free Routine
1. 5 judges on 3 panels (Execution, Artistic Impression and Difficulty)
 - a. AS 19.1
 - i. *Highest and lowest awards are cancelled (one of each) from each panel*
 - ii. *Remaining 3 awards are added for each panel.*
 - iii. *The Execution score and the Difficulty score is the sum of the remaining 3 awards in each panel (**rounding to four decimal**).*
 - iv. *The Artistic Impression score is the sum of the remaining 3 awards, divided by 3 and multiplied by 4 (**rounding to four decimal**).*
 - v. The total score of the Free Routine shall be the sum of the score from each panel, less any penalty deductions from AS 18.
 2. 4 judges on 3 panels (Non-FINA/LEN competitions)
 - a. If only 4 judges are available one extra “average” judge shall be added.
 - b. The awards from the average judge shall be calculated by adding all four actual judge awards and divided by four (**round of to one decimal**).
 - c. The average shall be calculated before highest and lowest awards are cancelled.
 - d. After that calculation according to AS 19.1 begins, including the average judge award.
 3. 3 judges on 3 panels (Non-FINA/LEN competitions)
 - a. If only 3 judges are available no extra “average” judge shall be added and no cancellation of highest/lowest awards shall be done.
 - b. All three judge awards is to be used for calculation according to AS 19.1.

Chief Recorder Operating Manual 2019 Edition

4. 1 or 2 panels (Non-FINA/LEN competitions)
 - a. If there is less than 9 judges available you can have one panel of 3-5 judges where each member in the panel gives three scores, one for Execution, one for Artistic Impression and one for Difficulty. Or two panels one for Execution and Difficulty and one for Artistic Impression. Then calculation is done according to AS 19.1.

- xv. Penalties in Free Routine
 1. All penalties according to AS 18 shall be deducted from the total routine score.

- xvi. Technical Routine
 1. 5 judges on 3 panels (Execution, Impression and Elements)
 - a. AS 19.2
 - i. *Execution panel: Highest and lowest awards are cancelled (one of each). Remaining 3 awards are added (rounding to four decimal). Deduct any penalties for AS 18.4.5 (Teams).*
 - ii. *Impression panel: Highest and lowest awards are cancelled (one of each). Remaining 3 awards are added (rounding to four decimal).*
 - iii. *Element panel: For each of the required elements the highest and lowest awards are cancelled (one of each). The sum of the remaining awards is divided by the same number of awards remaining after high/low is cancelled resulting in an average (no rounding of the result). Each element average is multiplied by the degree of difficulty for that element (round of to four decimal).*

All element scores shall be added to a Raw Total (no rounding of the result). This total shall be divided by the total degree of difficulty for all elements and then multiplied by 10 (no rounding of the result). The result shall then be multiplied by 0,4 and deducted any penalties four AS 18.4.6 (Solo, Duets and Mixed Duets) to result in a score for Elements (round of to four decimal).
 - iv. The total score of the Technical Routine shall be the sum of the score from each panel, less any penalty deductions from AS 18.
 2. 4 judges on 3 panels (Non-FINA/LEN competitions)
 - a. If only 4 judges are available one extra “average” judge shall be added.
 - b. The awards from the average judge shall be calculated by adding all four actual judge awards and divided by four (round of to one decimal).
 - c. The average shall be calculated before highest and lowest awards are cancelled.
 - d. After that calculation according to AS 19.2 begins, including the average judge award.
 3. 3 judges on 3 panels (Non-FINA/LEN competitions)
 - a. If only 3 judges are available no extra “average” judge shall be added and no cancellation of highest/lowest awards shall be done.
 - b. All three judge awards is to be used for calculation according to AS 19.2.

Chief Recorder Operating Manual 2019 Edition

4. 2 panel (Non-FINA/LEN competitions)
 - a. If there is less than 9 judges available you can have 2 panel of 3-4 judges where each member in the first panel gives 2 scores, one for Execution and one for Impression. In the second panel judges give scores only for elements. Then calculation is done according to AS 19.2.
- xvii. Penalties and other matters in Technical Routines
 - a. If one or more judges on the Element Panel has entered a zero for any element, or portion of an element the referee will review the official video.
 - i. If the required element has been executed correctly, then the average of the awards of the other remaining judges shall be computed and shall be considered as the missing award(s). (round of to one decimal)
 - ii. If the required element has not been performed correctly, the referee will instruct the Chief Recorder to record zeros for that element for each judge.
 - b. Half a point penalty shall be deducted from Execution Score for violations of Duet/Team/Highlight Required Elements 6, 7, 8 and 9 (Appendix VI).
 - c. Half a point penalty shall be deducted from the Element Score in Solos, Duets and Mixed Duets if the elements is not performed parallel to the sides of the pool where the judges have been placed.
 - d. All other penalties, according to AS 18, shall be deducted from the total routine score.
- xviii. Final result
 1. AS 20.2
 - a. The final result is determined by adding the final score of each performed session. If both preliminary and final sessions are held, the score from final session shall be used to calculate the final result (round of to four decimal).
 - b. In case of the same final result a tie shall be declared for the particular place.
 - c. If a decision has to be made to go to finals the following procedure will be used:
 - i. Solo, Duet, Mixed Duet and Team:
The higher total Free Routine score will decide. If they are the same, the Artistic Impression score of the free routine will decide. If they are the same, the Execution score will decide. If they are the same, the Element score will decide.
 - ii. Free Combination and Highlight Routine:
The higher Artistic Impression score will decide. If they are the same, the Execution score will decide.