Skating Results: The Relative Judging System (RJS)

Be warned: if your maths is weak, this may make your head spin.

Scoring in free skating competitions

Club and open competitions score skaters using the relative judging system (RJS). This is the 0.0 to 6.0 system of marks, where a score of 0 means the competitor did not skate, and a score of 6.0 means perfection at international level (or used to before the International Judging System was brought in). Marks therefore rate skaters of all abilities on the same scale, which means that most competitors at levels 6 and below will get marks of 3.0 or less. Marks of 2.0 to 3.0 are described as poor to mediocre (in the sense of being average), which is hardly an encouraging description of ability for young skaters.

The open-ended new or international judging system (NJS, or IJS) is beyond the capabilities of club-run events because of the number of computers and judges required for it to work.

Judging panels always consist of an odd number of judges, usually three or sometimes five. If an even number of judges were used it would be possible for skaters to tie; with an odd number, the judges' decisions in favour of one skater over another can usually be split by at least 2 judges to 1 with three judges, and by at least 3 judges to 2 with five judges.

Each judge marks each skater once for technical merit and once for presentation. All the scores for technical merit are revealed first and recorded by two markers, who confer, check that they have recorded the marks accurately on the marking sheets, and then signal to the referee that they have noted and agreed the marks. All the scores for presentation are then revealed, and again recorded and confirmed by the markers. For each judge, the two numbers are added together on the marking sheet, and this set of three (or five) marks is used to determine the winner once all the skaters have competed.

Presentation is the senior mark and is used to tie-break skaters. Hence if a judge marks one skater with technical merit 2.6 and presentation 3.0, and another skater technical merit 2.7 and presentation 2.9, both skaters have a total mark of 5.6, but the skater with presentation 3.0 beats the skater with presentation 2.9. It is rare for two skaters to receive the same total marks and the same presentation mark, but in such cases the tie cannot be broken.

The marks are used to determine each competitor's relative place according to each judge once all skaters in a category have skated. The relative places (known as ordinals) are then used to determine the winner.

Scoring in artistic competitions

Artistic or exhibition competitions differ in that five judges usually score. The same marks of 0.0 to 6.0 are used, however the first mark from each judge is for different criteria, usually technical merit, artistic impression, musical interpretation, choreography and costume (or costume & use of props). The second mark from each judge is for entertainment. Different clubs and opens judge different criteria: some do not judge technical merit, for example.

The two numbers for each judge are added to provide a total mark from each judge. These totals are then used to determine each skater's ordinals.

Some competitions simply add all the marks for a competitor in an artistic event to get a total, and the skater with the highest total wins. The IWID&FSC does not use this method because it potentially allows competitors to "buy" costume and props marks. Relative placing reduces the impact of heavy spending on costume and props.

The ordinals (relative places)

Ordinals are obtained simply by comparing the total mark for each skater for the same judge.

Let's assume that three judges are marking an event of three skaters.

	Judge 1				Judge 2				Judge 3			
	TM	**Pres**	**Total**	**Place**	**TM**	**Pres**	**Total**	**Place**	**TM**	**Pres**	**Total**	**Place**
Skater A	2.9	2.9	5.8	2	2.9	3.0	5.9	1	2.9	2.9	5.8	2
Skater B	2.9	3.0	5.9	1	3.0	2.9	5.9	2	3.0	3.0	6.0	1
Skater C	2.5	2.7	5.2	3	2.6	2.6	5.2	3	2.5	2.7	5.2	3

The ordinals according to Judge 1 are 1st Skater B, 2nd Skater A, and 3rd Skater C (totals of 5.9, 5.8 and 5.2 respectively).

The ordinals according to Judge 2 are 1st Skater A, 2nd Skater B, and 3rd Skater C (totals of 5.9, 5.9 and 5.2 respectively). Skater A is placed first because although she has the same total mark as Skater B, Skater A has the higher presentation mark and wins the tie.

The ordinals according to Judge 3 are 1st Skater B, 2nd Skater A, and 3rd Skater C (totals of 6.0, 5.8 and 5.2 respectively).

Working out the winner

The ordinals from the judges are now compared skater by skater to determine the number of wins. This is the one by one (OBO) system, and the OBO system published in 2000 is used. A skater scores 2 comparative points (CP) for a win, or 1 CP in the event of a tie.

A tie-break system works alongside the CP system. Skaters also score 2 points in favour (PIF) for each judge in favour (JIF), and 1 PIF in the event of a tie (which arises if a judge has given two skaters identical marks). Total points in favour (TPIF) are used to tie-break skaters who have the same number of CPs.

For the three skaters and judges above, the ordinals are:

	Judge 1	Judge 2	Judge 3
Skater A	2nd	1st	2nd
Skater B	1st	2nd	1st
Skater C	3rd	3rd	3rd

Comparing Skater A with Skater B, Skater A loses by two judges to one, but has one judge in favour. She scores 0 wins, 0 CP but 2 PIF. Comparing Skater A with Skater C, Skater A wins by three judges to none. She scores 1 win, 2 CP and 6 PIF. Her final standing is 1 win, 2 CP and 8 TPIF.

Comparing Skater B with Skater A, Skater B wins by two judges to one, and therefore has two judges in favour. She scores 1 win, 2 CP and 4 PIF. Comparing Skater B with Skater C, Skater B wins by three judges to none, and she scores 1 win, 2 CP and 6 PIF. Her final standing is 2 wins, 4 CP and 10 TPIF.

Comparing Skater C with Skater A, she loses by three judges to none. She scores no wins, 0 CP and 0 PIF. The same is true when her results are compared with Skater B, so she again scores no wins, 0 CP and 0 PIF. Her final standing is no wins, 0 CP and 0 TPIF.

The number of CP determines the winner. Skater B wins overall with 4 CP, Skater A is second overall with 2 CP, and Skater C is third with 0 CP. TPIF has no effect because there is no tie to break.

If two skaters have the same number of CP, the skater with the highest TPIF wins the tie. If the TPIF is also the same, the skaters tie.

If you see printed results sheets that give a skater 0 CP, it does mean that the skater scored nothing: it indicates that the skater did not beat anyone else. A skater is only given 0 marks if they do not skate and therefore withdraw from a competition.

Points to watch

Whenever there are three judges and only three skaters in an event, it is possible for all three skaters to tie for first place and for it to be impossible for a tie-breaker using TPIF to resolve the situation.

For example:

	Judge 1	Judge 2	Judge 3
Skater A	1st	2nd	3rd
Skater B	2nd	3rd	1st
Skater C	3rd	1st	2nd

In the above matrix, each skater beats one of the other skaters and has one win, 2 CP and 6 TPIF. The skaters finish joint first.

This can also happen with five skaters and five judges, although mathematically it is much less likely.

In a single class with a large number of skaters, it may be that irresolvable ties for other places occur.

Computerised results processing

The more skaters that take part in an event, and the more judges that score it, the more involved the comparisons become. A scoring program means results can be calculated quickly.

At club level there is a freely available Excel-based add-on for Windows called Skate Score (www.skatescore.com). Skate Score requires Excel 2000 or later.

At open competitions NISA requires clubs to use a program called Ice Calc.

Inter-club competitions

An additional level of scoring happens in inter-club competitions such as the Solent Inter-club Competition with Gosport. Here, skaters win points for their club based on their position in each class, and all the points from all the classes are totalled to determine the winning club.

For events where the number of skaters in each class is the same (for example, every class has six skaters), all skaters can win points: for example, six points for 1st place, five points for second place, down to 1 point for sixth place. If the number of skaters in each class is different, it is fairer to score only the top skaters. For example, if a number of classes contain five, six or seven skaters, then score for the top four skaters, with first place earning 4 points, second place earning 3 points and so on. The competition between the IWID&FSC and Gosport in March 2007 scored only the top four skaters in each event.

It is important to keep the number of available points constant, and with this in mind it is not possible to allow ties. The software cannot break a tie in this instance, so this is done manually.

Important points

No matter how confident you become at working out skating results, never, ever tell a skater where they have come: you may be wrong, and this can lead to all sorts of upset. Keep your conclusions to yourself, and be happy to have your calculations confirmed by the official result.

The official result, calculated by a competition's results processors and approved by the referee, is the official result, no matter what anyone else calculates. The competition may be using factors to weight the importance of certain marks, it may use tie-breaking conventions that the software itself does not cater for, or you may have misheard or misrecorded the scores – it's what's officially recorded that counts.

Crib sheet

CP	Comparative points, used to determine the final places
IJS	International judging system (formerly the NJS)
JIF	Judges in favour
NJS	New judging system (now called the IJS)
OBO	One by one. Results processing uses the OBO 2000 system
PIF	Points in favour, used for tie-breaking
RJS	Relative judging system (the 6.0 system)
TPIF	Total points in favour, used for tie-breaking

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