

FIDE Rating Regulations

Approved by the 1982 General Assembly, amended by the General Assemblies of 1984 through 2008

0.0 Introduction

The basic data for measurement of chess performances must be broad and ample. Play will be rated by FIDE when it takes place in a FIDE registered competition and meets all the following requirements.

0.1 The following regulations shall be altered by the General Assembly upon recommendation of the Qualification Commission.

Any such changes shall come into effect on 1st July of the year following the decision by the General Assembly. For tournaments, such changes will apply to those starting on or after that date.

0.2 In principle, all important events should be rated. All top level tournaments may be rated by FIDE even if no rating report is submitted by the federation of the territory in which the event is held.

0.3 All official FIDE tournaments, as listed in the Handbook, are always rated. The organizer is responsible for sending the results and is also responsible for the fees.

0.4 The tournaments to be rated must be pre-registered by the federation that will be responsible for the sending of results and rating fees. The tournament must be registered one month before the tournament starts. The Qualification Commission Chairman may refuse to register an event. Also he may allow an event to be rated which has been registered less than one month before the tournament starts.

0.5 The right is reserved not to rate a specific event. The Chief Organizer of the event has the right to appeal to the Qualification Commission. Such an appeal must be made within seven days of communicating the decision.

0.6 Rating floor referred to in the following text is the minimum rating to be published, from 1.7.2009 the floor will be 1200.

1.0 Rate of Play

1.1 For a game to be rated each player must have the following minimum periods in which to complete all the moves, assuming the game lasts 60 moves.

Where at least one of the players in the tournament has a rating 2200 or higher, each player must have a minimum of 120 minutes.

Where at least one of the players in the tournament has a rating 1600 or higher, each player must have a minimum of 90 minutes.

Where all the players in the tournament are rated below 1600, each player must have a minimum of 60 minutes.

1.2 Games played with all the moves at a rate faster than the above are excluded from the list.

1.3 Where a certain number of moves is specified in the first time control, it shall be 40 moves. Players benefit from uniformity here.

2.0 Laws to be followed

2.1 Play must take place according to the FIDE Laws of Chess. The federation may have minor deviations from the Laws of Chess, if approved by the Technical Commission.

3.0 Number of rounds per day

3.1 No more than three rounds per day and a total playing time of no more than 12 hours.

4.0 Duration of the event

- 4.1 For tournaments, a period not greater than 90 days, except:
 - 4.11 Leagues may be rated which last for a period greater than 90 days.
 - 4.12 The Qualification Commission Chairman may approve the rating of tournaments lasting more than 90 days.
 - 4.13 The ratings used are the ratings at the start of the tournament; or if the games are reported period by period (or round by round), the actual ratings at the time of the game may be used. The option must be chosen before the start of the first round. See B.01.1.16 for the equivalent rule.

5.0 Unplayed games

- 5.1 Whether these occur because of forfeiture or any other reason, they are not counted. Any game where both players have made at least one move will be rated.

6.0 Composition of the tournament

- 6.1 If an unrated player scores zero or half in his first event, his score and that of his opponents against him are disregarded. But if the unrated player has previously achieved a rating performance above the rating floor, then this result is included in computing his overall rating.
 - 6.2 The results in events involving preliminaries and finals or play-offs may be pooled.
 - 6.3 In a round robin tournament at least one-third of the players must be rated.
 - 6.31 If the event has less than 10 players, at least 4 must be rated.
 - 6.32 In a double round tournament with unrated participants, there must be at least 6 players, 4 of whom must be rated.
 - 6.33 National Championships played as round robins shall be rated if at least 3 men (or 2 women in events exclusively for women) participants had official FIDE Ratings before the start of the tournament.
 - 6.4 In a Swiss or team event:
 - 6.41 For an unrated player's performance to count he must play at least three games against rated opponents; score at least 1 point; and the rating based on the tournament result at its conclusion be above the rating floor.
 - 6.42 For rated players, only games against rated opponents are counted
 - 6.43 In the case of a round robin tournament where one or more games are unplayed, the results of the tournament must be reported for rating as if for a Swiss system tournament.
 - 6.5 Where a match is over a specific number of games, those played after one player has won shall not be rated.
 - 6.6 Matches in which one or both of the players are unrated shall not be rated.
- #### **7.0 Official FIDE Rating List**
- 7.1 The Qualification Commission shall prepare a list six times a year which incorporates the rated play during the rating period into the previous list. This shall be done using the rating system formula based on the percentage expectancy curve and derived from the normal distribution function of statistical and probability theory.

7.11 The published rating lists are valid as follows:

List published on	Valid for events commencing on
1 January	1 January to 28 (29) February
1 March	1 March to 30 April
1 May	1 May to 30 June
1 July	1 July to 31 August
1 September	1 September to 31 October
1 November	1 November to 31 December

Rating period (see new players) is the period where a certain rating list is valid.

7.12 The following data concerning each player whose rating exceeds the floor as of the current list: FIDE title, Federation, Current Rating, ID Number, Number of games rated in the rating period, Year of Birth, gender and the current value of K for the player.

7.13 The closing date for tournaments for a list is 7 days before the date of the list; the tournaments ending before or on that day are rated on the list.
Official competitions as listed in the FIDE Handbook are rated on the list even if they end on the last day before the list date.

7.14 A rating for a player new to the list shall be published only if it meets the following criteria:

7.14a If based on results obtained under 6.3., a minimum of 9 games.

7.14b If based on results obtained under 6.4., a minimum of 9 games played against rated opponents.

7.14c The condition of a minimum of 9 games need not be met in one tournament: results from other events, played within rating periods of not more than two years, are pooled to obtain the initial rating.

7.14d The rating is at least the rating floor.

7.14e The rating is calculated using all his results as if they were played in one tournament, but not published until he has played at least 9 games, then using all the rating data available.

7.14f If based on results obtained in the Olympiad, a Continental Team Championship or World Team Championship, a minimum of 7 games.

7.14g If a player is a member of the IBCA, ICSC or IPCA, a minimum of 7 games.

7.2 Players who are not to be included on the list:

7.21 Players whose ratings drop below the floor are listed on the next list as 'delisted'. Thereafter they are treated in the same manner as any other unrated player.

7.22 Unrated titled players are published in a separate list concurrently with the list of rated titled players.

7.23 Inactive players are not included on the list but nonetheless are considered rated at their most recent published rating for rating and title result purposes.

7.23a A player is considered to commence inactivity if he plays no rated games in a one year period.

7.23b Inactive players are shown on the next two years of rating lists after starting being considered inactive. Their names are then flagged as inactive in the alphabetical section of the rating list and removed from the national federation's lists which contain only the list of active players.

7.23c A player regains his activity if he plays at least one rated game in a period and he is then listed on the next list.

7.24 For the purposes of the FIDE rating list ranking of top players, a player who is inactive over a 12 month period of inactivity on the rating list will no longer appear on the top list.

7.3 The Qualification Commission shall move to monthly rating lists on 1 July of the year following a decision to do so by the Presidential Board. The above regulations shall be amended as follows: The list published on the 1st

day of the month shall be effective between the first and the last day of that month.

8.0 The working of the FIDE Rating System

The FIDE Rating system is a numerical system in which fractional scores are converted to rating differences and vice versa. Its function is to produce scientific measurement information of the best statistical quality.

8.1 The rating scale is an arbitrary one with a class interval set at 200 points. The tables that follow show the conversion of fractional score 'p' into rating difference 'dp'. For a zero or 1.0 score dp is necessarily indeterminate but is shown notionally as 800. The second table shows conversion of difference in rating 'D' into scoring probability 'PD' for the higher 'H' and the lower 'L' rated player respectively. Thus the two tables are effectively mirror-images.

(a) The table of conversion from fractional score, p, into rating differences, dp

p	dp	p	dp	p	dp	p	dp	p	dp	p	dp
1.0	800	.83	273	.66	117	.49	-7	.32	-133	.15	-296
.99	677	.82	262	.65	110	.48	-14	.31	-141	.14	-309
.98	589	.81	251	.64	102	.47	-21	.30	-149	.13	-322
.97	538	.80	240	.63	95	.46	-29	.29	-158	.12	-336
.96	501	.79	230	.62	87	.45	-36	.28	-166	.11	-351
.95	470	.78	220	.61	80	.44	-43	.27	-175	.10	-366
.94	444	.77	211	.60	72	.43	-50	.26	-184	.09	-383
.93	422	.76	202	.59	65	.42	-57	.25	-193	.08	-401
.92	401	.75	193	.58	57	.41	-65	.24	-202	.07	-422
.91	383	.74	184	.57	50	.40	-72	.23	-211	.06	-444
.90	366	.73	175	.56	43	.39	-80	.22	-220	.05	-470
.89	351	.72	166	.55	36	.38	-87	.21	-230	.04	-501
.88	336	.71	158	.54	29	.37	-95	.20	-240	.03	-538
.87	322	.70	149	.53	21	.36	-102	.19	-251	.02	-589
.86	309	.69	141	.52	14	.35	-110	.18	-262	.01	-677
.85	296	.68	133	.51	7	.34	-117	.17	-273	.00	-800
.84	284	.67	125	.50	0	.33	-125	.16	-284		

(b) Table of conversion of difference in rating, D, into scoring probability PD, for the higher, H, and the lower, L, rated player respectively.

D	P _D		D	P _D		D	P _D		D	P _D	
Rtg Dif	H	L	Rtg Dif	H	L	Rtg Dif	H	L	Rtg Dif	H	L
0-3	.50	.50	92-98	.63	.37	198-206	.76	.24	345-357	.89	.11
4-10	.51	.49	99-106	.64	.36	207-215	.77	.23	358-374	.90	.10
11-17	.52	.48	107-113	.65	.35	216-225	.78	.22	375-391	.91	.09
18-25	.53	.47	114-121	.66	.34	226-235	.79	.21	392-411	.92	.08
26-32	.54	.46	122-129	.67	.33	236-245	.80	.20	412-432	.93	.07

33-39	.55	.45	130-137	.68	.32	246-256	.81	.19	433-456	.94	.06
40-46	.56	.44	138-145	.69	.31	257-267	.82	.18	457-484	.95	.05
47-53	.57	.43	146-153	.70	.30	268-278	.83	.17	485-517	.96	.04
54-61	.58	.42	154-162	.71	.29	279-290	.84	.16	518-559	.97	.03
62-68	.59	.41	163-170	.72	.28	291-302	.85	.15	560-619	.98	.02
69-76	.60	.40	171-179	.73	.27	303-315	.86	.14	620-735	.99	.01
77-83	.61	.39	180-188	.74	.26	316-328	.87	.13	> 735	1.0	.00
84-91	.62	.38	189-197	.75	.25	329-344	.88	.12			

8.2 Determining the Rating 'Ru' in a given event of a previously unrated player.

8.21 If an unrated player scores less than 1 point in his first rated event, or he plays fewer than 3 rated opponents in any event, his score is disregarded.

First determine the average rating of his competition 'R_c'.

(a) In a Swiss or Team tournament: this is simply the average rating of his opponents.

(b) The results of both rated and unrated players in a round robin tournament are taken into account.

For unrated players, the average rating of the competition 'R_c' is also the tournament average 'R_a' determined as follows:

(i) Determine the average rating of the rated players 'R_{ar}'.

(ii) Determine p for each of the rated players against all their opponents.

Then determine d_p for each of these players.

Then determine the average of these d_p = 'd_{pa}'.

(iii) 'n' is the number of opponents.

$$R_a = R_{ar} - d_{pa} \times n / (n+1)$$

8.22 If he scores 50%, then $R_u = R_a$

8.23 If he scores more than 50%, then $R_u = R_a + 12.5$ for each half point scored over 50%

8.24 If he scores less than 50% in a Swiss or team tournament: $R_u = R_c + d_p$

8.25 If he scores less than 50% in a round-robin: $R_u = R_a + d_p \times n / (n+1)$.

8.3 The Rating R_n which is to be published for a previously unrated player is then determined as if the new player had played all his games so far in one tournament. The initial rating is calculated using the total score against all opponents.

8.31 Where a player's first result(s) is less than the FIDE rating floor at the time of the event, the result(s) is ignored.

8.32 R_n for the FIDE Rating list (FRL) is rounded off to the nearest 1 or zero. 0.5 is rounded up.

8.33 Only R_n ≥ the FIDE rating floor at the time of the event, are considered.

8.34 Example: An unrated player has played 3 games in a tournament against rated players with average rating of 2220, score 1/3; then in another tournament 5 games against rated players with the average of 2150, score 3/5; and then in a third tournament 4 games against rated players with average rating 2200, score 2½/4.

The player's initial rating is calculated as if he had played 12 games with a score 6½/12.

The average rating of all opponents is

$$(3 \times 2220 + 5 \times 2150 + 4 \times 2200) / 12 = 2184$$

The result is 6½/12, it is half a point over 50 percent.

$$\text{The new player's first published rating is } 2184 + 12.5 = 2197$$

8.4 If an unrated player receives a published rating before a particular tournament in which he has played is

rated, then he is rated as a rated player with his current rating, but in the rating of his opponents he is counted as an unrated player.

8.5 Determining the rating change for a rated player

8.51 For each game played against a rated player, determine the difference in rating between the player and his opponent, D .

8.52 If the opponent is unrated, then the rating is determined at the end of the event. This applies only to round-robin tournaments. In the Swiss tournaments the games against unrated opponents are not rated.

8.53 The rating of unrated players obtained from earlier tournaments is ignored.

8.54 A difference in rating of more than 400 points shall be counted for rating purposes as though it were a difference of 400 points (compare 8.58).

8.55 (a) Use table 8.1(b) to determine the player's score probability P_D

(b) $\Delta R = \text{score} - P_D$. For each game, the score is 1, 0.5 or 0.

(c) $\Sigma \Delta R \times K = \text{the Rating Change for a given tournament, or Rating period.}$

8.56 K is the development coefficient.

$K = 25$ for a player new to the rating list until he has completed events with at least 30 games

$K = 15$ as long as a player's rating remains under 2400.

$K = 10$ once a player's published rating has reached 2400 and remains at that level subsequently, even if the rating drops below 2400.

8.57 R_n is rounded off to the nearest 1 or 0, 0.5 is rounded to 1.

8.58 Determining the Ratings in a round-robin tournament.

Where unrated players take part, their ratings are determined by a process of iteration. These new ratings are then used to determine the rating change for the rated players.

What follows shows the methodology.

player	Rate	W	p	d_p	R_c	R_u	R_c new	R_u new	W_e	Kchg
A	2600	8	.89	351					7.38	+6.2
B	2500	7	.78	220					6.50	+5.0
C	U	7			2348	2411	2348	2414		
D	2400	6	.67	125					5.40	+6.0
E	U	6			2348	2386	2348	2386		
F	2150	4	.44	-43					2.52	+22.20
G	2300	3	.33	-125					4.21	-18.15
H	U	2			2348	2150	2337	2139		
I	U	1			2348	2032	2305	1989		
J	2300	1	.11	-351					4.21	-48.15

$$R_{ar} = 2600 + 2500 + 2400 + 2150 + 2300 + 2300 \text{ divided by } 6$$

$$R_{ar} = 2375$$

$$d_{pa} = 351 + 220 + 125 - 43 - 125 - 351 \text{ divided by } 6$$

$$d_{pa} = 29.5$$

$$R_a = 2375 - 29.5 \times 9/10$$

$$R_a = 2348$$

$$\text{For Player C } R_u = 2348 + 5 \times 12.5 = 2411$$

$$\text{For Player E } R_u = 2348 + 3 \times 12.5 = 2386$$

$$\text{For Player H } R_u = 2348 - 220 \times 0.9 = 2150$$

$$\text{For Player I } R_u = 2348 - 351 \times 0.9 = 2032$$

However, Player I is more than 400 points below players A and B

Player H is more than 400 points below A.

Player H, A counts as 2550 $R_c(\text{new})=2342$

Player I, A, B count as 2432 $R_c(\text{new})=2322$

Then the ΔR for each of the rated players for each game is determined using $R_u(\text{new})$ as if an established rating.

9.0 Reporting Procedures

- 9.1 The results must be submitted using the rating server and TRF files.
- 9.2 Results of all international competitions must be submitted for rating unless the original invitations have made it clear the event was not to be FIDE rated. The chief arbiter must also announce this to the players before the tournament starts.
- 9.3 Each national federation shall designate an official to coordinate and expedite qualification and rating matters. His name and details must be given to the FIDE Secretariat.

10.0 Monitoring the Operation of the Rating System

- 10.1 One of the functions of Congress is to establish the policies under which FIDE titles and ratings are awarded. The function of the rating system is to produce scientific measurement information of the best statistical quality to enable Congress to award equal titles for equal proficiencies of players. Thus the rating system must be properly scientifically maintained and adjusted on both a short and long term basis.
- 10.2 The rating scale is arbitrary and open ended. Thus only differences in ratings have any statistical significance in terms of probability. Thus if the composition of the FIDE Rating pool were to change, the rating scale could drift with respect to the true proficiency of the players. It is a major objective to ensure the integrity of the system so that ratings of the same value from year to year represent the same proficiency of play.
- 10.3 Part of the responsibilities of the Rating System Administrator is to detect any drift in the rating scale.

11.0 The requirements for the FIDE Rating System Administrator

- 11.1 A sufficient knowledge of statistical probability theory as it applies to measurements in the physical and behavioral sciences.
- 11.2 Ability to design the surveys described under 12.3.; to interpret the results of the surveys; and to recommend the Qualification Commission whatever measures are needed to preserve the integrity of the rating system.
- 11.3 To be able to advise and assist any FIDE member federation in the establishment of a national rating system
- 11.4 To display a level of objectivity comparable to that of an FIDE Arbiter.

12.0 Some comments on the Rating system

- 12.1 The following formula gives a close approximation to tables 8.1a/b.
$$P = 1/(1 + 10^{-D/400}).$$
 However the tables are used as shown.
- 12.2 Tables 8.1a/b are used precisely as shown, no extrapolations are made to establish a third significant figure.
- 12.3 K is used as a stabilizing influence in the system. When $K = 10$, the rating turns over in approximately 75 games; $K = 15$, 50 games, $K = 25$, it is 30 games.
- 12.4 The system has been devised to enable players to verify their ratings readily.