

UNDERSTANDING NSCL PLAYER RATINGS

Ratings show the relative strengths between players. The NSCL rating system works like this. Suppose there are two players with stable ratings 100 points apart, such as 850 and 750. If they have a match of 10 games, the score would on the average be about 6 points to 4 points in favor of the higher rated player by any combination of wins and draws. For a 200 point difference, the score would be about 7.5-2.5, and for 300 points about 9-1. The bigger the rating difference, the fewer games the lower rated player is expected to win.

However, many players improve by studying chess theory, practicing and playing a lot, and sometimes taking chess lessons. As these players get better, they can win rating points in match competition and watch their rating go up. To increase one's rating, one needs to win games, especially against higher rated players. Here's how to figure out a new rating after a meet.

Rating Rules. In a game between two players, the following formulas apply:

1. If the higher rated player wins the game, he/she wins 21 points minus 5% of the difference in ratings. (The actual numbers the computer uses are 20.8 and 5.2%.) The player who loses the game loses the same number of points gained by the winner.
2. If the lower rated player wins the game, he/she wins 21 points plus 5% of the difference in ratings. The player who loses the game loses the same number of points gained by the winner.
3. If there is a draw, the lower rated player gains 5% of the difference in ratings while the higher rated players loses the same number of points.
4. The most points one can win or lose in a game is 42.
5. A player's rating is not recalculated until all the games in the tourney are complete.

Rating Examples: Here we show how to compute a rating after a meet of three games.

Suppose your NSCL rating at the start of a meet is 750. You defeat a player rated 700, lose to a player rated 1100, and draw a 1000 player. Here's how to figure your new rating.

$$\begin{aligned} \text{Points gained} &= \text{Points from game 1} &+& \text{Points from game 2} &+& \text{Points from game 3} \\ &= [20.8 - 0.052 * (700-750)] &+& [-20.8 + 0.052 * (1100-750)] &+& [0.052 * (1000-750)] \\ &= [20.8 - 2.6] &+& [-20.8 + 13] &+& [13] \\ &= 18.2 &+& -7.8 &+& 13 \\ &= \mathbf{+23.4 \text{ points}} \end{aligned}$$

Your new rating is $750 + 23.4 = 773.4$. Rounded it becomes 773. But there is more.

Bonus Points. A player that does very well in a tourney wins bonus points.

Bonus 1. The first bonus formula is that every point gained above 20 total points is a bonus point. In the above example the bonus is $23.4 - 20 = 3.4$ points.

Bonus 2. There is another bonus formula for players rated under 1000. For each game played, he/she wins 1% of the difference between his/her rating and a rating of 1000. In the above example the bonus is 6.8 points, computed as follows: $3 * 0.01 * (1000-773) = 6.8$.

The total bonus points for the example are $3.4 + 6.8 = 10.2$ and your new NSCL rating would be $773.4 + 10.2 = 784$. You picked up 34 points in the meet.