



## The VCF Tour Cup



1. **Purpose.** This document describes how the VCF calculates VCF Cup Points from tournament results and awards prizes based on those results. The VCF's "formula" was borrowed and adapted from the Colorado State Chess Association, where former VCF President Andy Rea once lived.

2. **Prize Structure.** The prize structure recognizes seven (7) categories of awards with three (3) awards within each category: Overall Place, Expert (ratings from 2000-2199), Class A (1800-1999), Class B (1600-1799), Class C (1400-1599), Class D (1200-1399), and Class E/Unrated (rated 1199 and below). The Ratings the VCF uses to determine prize eligibility are based on the official US Chess Rating Supplement in play at the start of the VCF Fiscal Year for which the prizes are to be awarded. For example, for Prize Year 2022-23 the US Chess Rating Supplement used is from September 2022.

- a. **The total prize fund** to cover all the awards can vary each year, but in general, is at least \$1,500.
- b. **Overall Place Awards.** Using a \$1,500 total prize fund, the 1<sup>st</sup> – 3<sup>rd</sup> Place overall players receive 15%, 8%, and 5%, respectively (e.g., \$225, \$120, and \$75). If the value of a place prize is less than the value of the Top award within a class, then that player receives the higher dollar award prize.
- c. **Class Awards.** Using a \$1,500 total prize fund, players whose VCF Cup points place them as one of the top 3 players in each Class category receive 6%, 4%, and 2%, respectively (e.g., \$90, \$60, and \$30).
- d. The VCF has the option to also present plaques to any or all the players within each prize category.

3. **Calculating VCF Cup Points.** *There are two components for calculating a player's VCF Cup Points from a tournament*—the tournament or section's **Average Rating**, and the **Win Percentage** for each player in the tournament or section.

- a. **Average Ratings (AR).** The AR accounts for the "strength" of the event based on the ratings of the participants. From a practical perspective, it makes sense that a player who scores 50% in a tournament (or section) with a higher **AR** should receive more credit for doing well as compared to another event with a lower **AR**. Note also that **AR** values **use the post-event ratings** for each player, not their ratings before the tournament. This approach not only accounts for previously unrated players, but also for players who gained or lost rating points. There are two acceptable sources for identifying players' post-event ratings—the TD's Pairing Software, or the official US Chess Cross-Table for the event. The same source should be used for the entire event. The formula to calculate **AR** is:

$$\text{AR} = (\text{Sum of each player's post-event rating}) \div (\# \text{ of players in the tournament or section}).$$

- b. **Win Percentage (Win %).** Imagine a 5-round tournament and a player who scores 3 points out of a possible 5. That player's **Win %** is 60% (e.g.  $3/5 * 100$ ). In the same tournament, another player has 2 points through Round 4, but withdrew from the last round. That player's **Win %** is 40% (not 50%) because the player's **Win %** is calculated based on all 5-rounds—this prevents players who played fewer rounds from having inflated **Win %** values. All Half-point Byes and computer-generated Full-point Byes count toward a player's total score for calculating **Win %**. The formula to calculate **Win %** is:

$$\text{Win \%} = 100 \times (\text{Player's Total Score}) \div (\# \text{ of Rounds in the Tournament or Section}).$$

4. **How Tournament Structure impacts VCF Cup Points.** The calculation method differs for tournaments with one section compared to those with more than one section. For example:

a. **A Tournament with only One Section:**

$$\text{Cup Points} = (\text{Win \%}) \times (\text{AR}) \times (\# \text{ of Players in the Tournament}) \div 1000.$$

b. **A Tournament with Two Sections:** The formula to use in the Top Section is shown below. For the bottom section, use Formula 4a above.

$$\text{Cup Points} = [(\text{Win \%}) \times (\text{AR}) \times (\# \text{ of Players in the player's section}) \div 1000] + (0.90 \times \# \text{ of players in the next section below}).$$

c. **A Tournament with Three Sections:** Apply the formula below to the Top section. For the second section use Formula “4b” above because there is only 1 section lower than the second section. For the lowest section, use Formula “4a”.

$$\text{Cup Points} = [(\text{Win \%}) \times (\text{AR}) \times (\# \text{ of Players in the player's section}) / 1000] + (0.90 \times \# \text{ of players in the first section below}) + (0.80 \times \# \text{ of players in the second section below}).$$

d. **A Tournament with Four or more Sections:** For the Top section use the same formula shown above for a 3 section event (formula 4c). In other words, if the event has 4 sections, then the Cup Points for the top section are determined using only the number of players in each of the 2 sections below the top section. The table below provides a summary of what formula to apply by section.

# of Sections	Cup Points Formula to Use
1	<ul style="list-style-type: none"> <li>• Formula “4a”</li> </ul>
2	<ul style="list-style-type: none"> <li>• Formula “4b” for Top Section</li> <li>• Formula “4a” for Bottom Section</li> </ul>
3	<ul style="list-style-type: none"> <li>• Formula “4c” for Top Section</li> <li>• Formula “4b” for Middle Section</li> <li>• Formula “4a” for Bottom Section</li> </ul>
4	<ul style="list-style-type: none"> <li>• Formula “4c” for Top Section</li> <li>• Formula “4c” for Second Section</li> <li>• Formula “4b” for Third Section</li> <li>• Formula “4a” for Bottom Section</li> </ul>
5	<ul style="list-style-type: none"> <li>• Formula “4c” for Top Section</li> <li>• Formula “4c” for Second Section</li> <li>• Formula “4c” for Third Section</li> <li>• Formula “4b” for Fourth Section</li> <li>• Formula “4a” for Bottom Section</li> </ul>

e. **Bonus Points Rule.** A player who finishes *in clear first place* in the section or tournament *gets 3 bonus points* added to their VCF Cup Points. This rule applies even when clear 1<sup>st</sup> place does not equate to a 100% value for **Win %**. The 3 bonus points rule does not apply whenever two or more players tie for 1<sup>st</sup> place.

f. **Player Cap Rule.** When calculating Cup Points, there is *a Player Cap of 200*. In other words, if a section has 400 players the value of “# of players in the section” used to calculate Cup Points is 200, not 400. The Player Cap Rule also applies to any lower sections in a multi-section event, but it does not apply to calculating values for each section’s average rating (**AR**).

7. **Tiebreaks.** “Tiebreaks” are not used to calculate VCF Cup Points.

*See below for practical examples of calculating VCF Cup points*

### **Examples of Calculating VCF Cup Points**

**Example 1:** A small 3-round tournament with 8 players.

Place	Player	Rd 1	Rd 2	Rd 3	Total Score	Pre-Event Rating	Post-Event Rating	Win %	Raw Cup Points	Final Points	Remarks
1	Johnny	W7	W4	W3	3.0	2300	2312	100%	16.4400	<b>19.4400</b>	3 Bonus Pts
2	Sally	W6	D3	D4	2.0	2150	2154	66.6%	10.9490	<b>10.9490</b>	
3	Joe	W5	D2	L1	1.5	2200	2196	50%	8.2200	<b>8.2200</b>	
4	Bob	W8	L1	D2	1.5	2100	2101	50%	8.2200	<b>8.2200</b>	
5	Jane	L3	D6	W7	1.5	1950	1958	50%	8.2200	<b>8.2200</b>	
6	Kay	L2	D5	W8	1.5	1900	1908	50%	8.2200	<b>8.2200</b>	
7	Rufus	L1	W8	L5	1.0	2000	1989	33.3%	5.4745	<b>5.4745</b>	
8	Pranav	L4	L7	L6	0.0	1850	1822	0%	16.4400	<b>19.4400</b>	

**Calculation Notes:**

- Step 1:** Use Formula 3a to calculate the value of **AR** for the 8 players using their “post event ratings”. That number is 2055.
- Step 2:** Use Formula 3b to calculate each player’s **Win %**.
- Step 3:** Use Formula 4a to determine the raw Cup Points for each player. We run this figure out to 4 decimal places. Remember to add 3 Bonus Points to the player who finished in Clear First Place.

**Example 2:** A 3 round Event with 8 players in Section A and 10 players in Section B.

**Section A: Championship**

Place	Player	Rd 1	Rd 2	Rd 3	Total Score	Pre-Event Rating	Post-Event Rating	Win %	Raw Cup Points	Final Points
1	Johnny	W7	W4	W3	3.0	2300	2312	100%	25.4400	<b>28.4400 *</b>
2	Sally	W6	D3	D4	2.0	2150	2154	66.6%	19.9600	<b>19.9600</b>
3	Joe	W5	D2	L1	1.5	2200	2196	50%	17.2200	<b>17.2200</b>
4	Bob	W8	L1	D2	1.5	2100	2101	50%	17.2200	<b>17.2200</b>
5	Jane	L3	D6	W7	1.5	1950	1958	50%	17.2200	<b>17.2200</b>
6	Kay	L2	D5	W8	1.5	1900	1908	50%	17.2200	<b>17.2200</b>
7	Rufus	L1	W8	L5	1.0	2000	1989	33.3%	14.4800	<b>14.4800</b>
8	Pranav	L4	L7	L6	0.0	1850	1822	0%	9.0000	<b>9.0000</b>

\* Includes 3 Bonus Points for Player 1 who finished in clear first place.

**Section B: U1800**

Place	Player	Rd 1	Rd 2	Rd 3	Total Score	Pre-Event Rating	Post-Event Rating	Win %	Raw Cup Points	Final Points
1	Carmine	W6	W5	D2	2.5	1790	1793	83%	12.2333	<b>12.2333</b>
2	Carter	W8	W7	D1	2.5	1610	1647	83%	12.2333	<b>12.2333</b>
3	Chad	D9	D4	W7	2	1595	1596	67%	9.7867	<b>9.7867</b>
4	Dougie	L7	D3	W8	1.5	1700	1670	50%	7.3400	<b>7.3400</b>
5	Daniel	W10	L1	D6	1.5	1520	1513	50%	7.3400	<b>7.3400</b>
6	Lindsay	L1	W9	D5	1.5	1482	1486	50%	7.3400	<b>7.3400</b>
7	Linda	W4	L2	L3	1.0	1430	1443	33%	4.8933	<b>4.8933</b>
8	Thomas	L2	W10	L4	1.0	1300	1296	33%	4.8933	<b>4.8933</b>
9	Claire	D3	L6	D10	1.0	1240	1235	33%	4.8933	<b>4.8933</b>
10	Grade	L5	L8	D9	0.5	995	1001	17%	2.4467	<b>2.4467</b>

**Calculation Notes:**

- Step 1:** determine the Raw Cup Points for Sections A and B using Steps 1-3 as shown in Example 1. Remember, the 3-Point Bonus rule only applies when there is a single player in clear 1<sup>st</sup> place—so Section B does not have a player eligible to receive bonus points because 2 players finished with 2.5 points. The formula used to calculate Johnny’s Raw Cup Points in Section A was:

$$(AR \times Win \% \times \# \text{ of Players}) / 1000 + 3 \text{ Bonus Pts} = \text{Total Points.}$$

$$(2055 \times 100 \times 8) / 1000 + 3 \text{ Bonus Pts} = 19.4400.$$

- Step 2:** Next, for Section A, apply Formulas 3a, 3b, and 4b in sequence. Here we use Formula 4b to determine Raw Cup Points because there are two sections. Formula 4b considers the fact that Section B has 10 players and therefore awards 90% of that number of players as extra points (e.g., 9 points) to all players in Section A. The formula used to calculate Johnny’s Final Points was:

$$\text{Section A Score} + (90\% \times \# \text{ Players in Sect. B}) = \text{Total Points.}$$

$$19.4400 + (.9 \times 10) = 28.4400.$$