

How the Math Works

by Ray Feruski 2020

This page is created to show how all calculations are performed for the CCPL League

Calculating: Matches Needed to Qualify

RULE 1

Total Scheduled Matches for the Season: is Decided by the Captains at the Beginning of Each Season

RULE 2:

Minimum Total Matches Needed to Qualify: is 2/3 of Current Season Total Scheduled Matches

Formula: $2/3 \times \text{Total Scheduled Matches}$

Minimum Total Matches = $\{(\text{Total Seasons Matches}) \times (2/3)\}$ Rounded to the nearest number

If the answer is not a whole number then the number is rounded up or down

Standard Rounding procedure is used:

If the number is .5 or greater the number is rounded up

If the number is less than .5 then the number is rounded down

RULE 3:

Minimum Number of Regularly Scheduled Matches Needed to Qualify:

Formula: $1/2 \times \text{Total Scheduled Matches}$ (this is my reduced formula)

NOTE: The Original reasoning behind this is the Original Formula was as follows:

Minimum number of Regular Matches Needed to Qualify = $[(\text{Minimum Total Matches}) \times (3/4)]$ Rounded
Since the **Minimum Regular Scheduled Matches** is $3/4$ of the **Minimum Matches Needed to Qualify**, and the **Minimum Matches Needed to Qualify** is $2/3$ of **Total Scheduled Matches**: Therefore the **Minimum Regular Scheduled Matches = $3/4 \times 2/3 \times \text{Total Scheduled Matches}$** . Since $3/4$ of $2/3 = 6/12$ or $1/2$ the **Formula is reduced to the Formula Below:**

Regular Scheduled Matches Needed to Qualify = $1/2 \times \text{Total Scheduled Matches}$

If the answer is not a whole number then the number is rounded up or down

Standard Rounding procedure is used:

If the number is .5 or greater the number is rounded up

If the number is less than .5 then the number is rounded down

RULE 4:

Maximum of Drops Allowed

Formula: $[1/4 \times (\text{Scheduled Matches} - 12 \text{ Matches})]$ Rounded Down

The reasoning behind this is: It was decided by the captains that 12 matches is the minimum number of matches needed to calculate a handicap. Since a handicap could not be calculated if drops were allowed in the first 12 matches, it was decided to calculate the drops based on matches greater than 12.

After the first 12 matches, 25% of your matches are allowed to be dropped for alibis. Looking at it from this point of view, everyone gets to drop 1 out of every 4 match shot after they have completed their first 12 matches.

The reason Drops are Rounded Down is so drops are not given until there is at least 4 matches in, after the first 12 matches needed for your handicap are completed. Since the drop is based on 25% of your total matches, after the first 12 matches, at least 4 more matches are needed, before one drop is allowed.

Therefore 25% of 4 matches = 1 Drop, anything less than that, is not 25% of the total matches.

Requirements for Club PLAQUES and RECORDS

Specifically: 280, 290, 295, 300 Club

BY MAJORITY VOTE of the CAPTAINS on this day 11-20-2014:

In order to be placed into the club records and receive a club plaque the following Criteria must apply:

- 1) The Competitor Must have paid the current season **Dues in Full**.
- 2) The Competitor Must be a **member, of a CCPL team**, in the Current season.
- 3) The Competitor Must have **obtained the new record score in a Regular Scheduled Team Match or League Makeup match** in the Current season.

It is also been decided on this day that Since these are records not awards:

League Competitors: **Do Not have to qualify for Awards** to receive a Club Plaque

League Competitors: **Do Not have to qualify for Awards** to be placed into the Club Records

The resulting answers were based on the questions below:

QUESTION 1: (Pertaining to the 280, 290, 295, and 300 Club Records)

Do you have to qualify for awards to be placed into the Club Records?

(Since these are records not awards)

ANSWER to QUESTION 1:

BY MAJORITY VOTE of the CAPTAINS on this day **11-20-2014** the answer to QUESTION 1 is **NO**.
(A competitor does **not have to qualify for awards**, to be placed in the **CCPL Club Records**.)

QUESTION 2: (Pertaining to the 280, 290, 295, and 300 Club Plaque)

Do you have to qualify for awards to get a Club Plaque?

ANSWER to Question 2:

BY MAJORITY VOTE of the CAPTAINS on this day **11-20-2014** the answer to QUESTION 2 is **NO**.
(A competitor does **not have to qualify for awards**, to receive a **Club Plaque**.)

QUESTION 3:

(Pertaining to the **EXTRA and/or TIE BREAKER POINT**)

If teams are tied for an extra point by total score and x's, Should they flip a coin or allow the computer calculate the winning team by total, rapid, time, slow and x's?

ANSWER to Question 3:

BY MAJORITY VOTE of the CAPTAINS on this day **11-20-2014** the answer to QUESTION 3 is **the computer will calculate the winning team by total, rapid, time, slow and x's**.

(A coin flip is only used: if the computer is unable to determine the extra point winner mathematically)

CCPL Master Score Sheet, Macro Logic:

Is based on the information below:

TEAM SCORING & TIE BREAKERS

The **EXTRA** and/or **TIE BREAKER POINT** is determined as follows:

- The team with the Highest Sum Total of Match 1 and Match 2 wins the extra point (1 Point)
(Or the team with the highest top five competitors scores from match 1 and 2 added together wins the extra point – the losing team gets zero extra point)
- IF Sum Total of match 1 & 2 are the same for both teams then winner is determined by each team Total X's
(Or the Sum of each teams top 10 Competitors X's)
- IF Sum Total X's of match 1 & 2 are the same for both teams then winner is determined by each team Rapid Score
(Or the Sum of each teams top 10 Competitors Rapid Fire Scores)
- IF Sum Rapid Fire Scores of match 1 & 2 are the same for both teams then winner is determined by each team Total Rapid X's
(Or the Sum of each teams top 10 Competitors Rapid Fire X's)
- IF Sum Rapid Fire X's of match 1 & 2 are the same for both teams then winner is determined by each team Total Time Scores
(Or the Sum of each teams top 10 Competitors Time Fire Scores)
- If the Sum of Time Fire Scores of match 1 & 2 are the same for both teams then **Total Time X's and Slow Fire Scores Are Not Compared. See Note:**
- The winner is determined by Coin Flip or Other means.

In theory, (using the above system) the odds of an extra point tie is insignificant.)

Added Note:

The above Logic prevents the possibility of a final tie score between two teams in any scheduled match.

Every Match will end with a total of 5 points between the two teams.

(The sum of all points won by both teams will always equal 5)

Match 1 will end with a total of 2 points between the two teams.

Match 2 will end with a total of 2 points between the two teams.

Extra Point will end with a total of 1 point between the two teams.

If a team Forfeits, that team gets zero points and the opposing team gets all the allowed points.

Note: There is no point to comparing Timed Fire X's because if Total X's and Rapid Fire X's are the same, Timed Fire X's must also be the same. There is no point to comparing Slow Fire Scores because if Total, Rapid and Timed Scores are the same, Slow Fire Scores must also be the same.

CLEAN TARGET DRAWING

BY MAJORITY VOTE of the CAPTAINS on this day 04-16-2016:

In order **Qualify for the Clean Target Drawing**, the following Criteria must apply:

- 1) The Competitor **Must** have paid the current season **Dues in Full**.
- 2) The Competitor **Must** be a **member, of a CCPL team**, in the Current season.
- 3) The Competitor **Does Not have to qualify for Awards**, since it is a Drawing.

BANQUET DRAWING

BY MAJORITY VOTE of the CAPTAINS on this day 04-16-2016:

Any one who pays their league fee whether they shoot or not: **Qualify for the banquet drawing**.