

## Northumbria Table Tennis League - How your grading is calculated

At the start of each season every player has a grade number in the range 50 to 350, the higher the number the better the player. This grade is either the most recent grade earned during a season or working back year by year until they last played in the league. There will be some players who have no grade, such as new players and players moving into the area from other leagues.

At the end of each season, or earlier if required, the administrator goes through every game played by every player and, using a bespoke computer program, applies the following rules:

- a) If a player beats another who is graded more than 50 points worse than them the game does not count (for grading purposes) for either player. For example if a player graded 200 beats a player graded 100 the game is ignored for grading purposes. Note though that game would count if the lower graded player won.
- b) For all other games the winning player gets their opponent's grade plus 50, the losing player gets their opponent's grade minus 50 and each has played one game for grading purposes. For example if a player graded 200 beats a player graded 180 then the first player's record is - played 1 points 230 ( $180 + 50$ ) whilst the second player gets - played 1, points 150 ( $200 - 50$ ).
- c) After each game has been looked at in this way, every player will have a different number of grading games and grading points. If a player has played 40 or more grading games then their new grade is simply the number of grading points divided by the number of grading games. For example a player might have actually played 66 games but for grading purposes might have only played 45 and scored 8550 grading points, giving a new grade of 190 ( $8550$  divided by 45).
- d) To get an accurate reading a player must have played at least 40 grading games.
- e) If a player has not played 40 grading games then we must increase the number of grading points by adding the shortfall number of games multiplied by his grading at the start of the season. For example if a player graded 160 has played only 25 grading games for 5000 grading points then the 25 is increased to 40 by adding 15 games and the grading points are increased from 5000 to 7400 by adding 2400 ( $15 \times 160$ ). The player's new grade would then be 185 ( $7400$  divided by 40) and not the 200 it would have been based on the 25 grading games ( $5000$  divided by 25). This is done to avoid the big fluctuations in grade, which would be caused without this approach, by a single strange result. Clearly if a player graded 200 beats a player graded 200 in their only game to count, a new grade of 250 would not be justifiable.