

Tournament Seating

How players are placed at tables

Designed to be fair, transparent, and simple to verify.

What this document is for

This document explains how players are seated at tables in this tournament. It is published well in advance so that anyone — players, captains, spectators — can read it, understand it, and trust that the seating is fair.

There are two things you might want to know:

1. How is randomness introduced into the seating? (i.e. how do we make sure no one gets a 'planted' good schedule?)
2. What does the seating actually guarantee about the games each player will play?

Both questions are answered in this document, in plain language.

The short version

Two simple public draws decide everything:

First draw: each team gets a number.

Second draw: within each team, the four members gets which member is which.

After those two draws, the seating for every round of the tournament is fully determined by a published table. The published table itself contains no hidden choices — it is built by a fixed, simple rule that anyone can check.

That is the entire system. The rest of this document is a longer, friendlier explanation of why this approach is fair.

The two public draws

Everything random in this tournament happens in these two draws. Both should be done in front of the players (or live-streamed) so everyone can see them happen.

Draw 1 — Team numbers

Every team is assigned a team number from 1 to T (where T is the total number of teams; for example, $T = 42$ when there are 168 players).

This can be done with paper slips in a hat, a public lottery, dice — anything visibly random. The only requirement is that the draw is witnessed.

Draw 2 — Roles within each team

Within each team, the four members draw to decide who is role 0, role 1, role 2, and role 3. Again, any witnessed method works: the team's four members might draw slips of paper among themselves.

From draws to seat numbers

Once both draws are done, every player has a unique seat ID from 1 to N (the total number of players), computed by this simple rule:

$$\text{Seat ID} = 4 \times (\text{team number} - 1) + \text{role} + 1$$

So for example: a player on team 7 with role 2 gets seat ID $4 \times 6 + 2 + 1 = 27$.

From seat IDs to seats

After this, the published seating table tells you exactly where each seat ID sits, in every round of the tournament. The table is the same one published with this document — there is nothing else to draw, decide, or compute.

What the seating guarantees

These properties hold for every player count covered in this document (152, 156, 160, 164, and 168 players), all over 11 rounds. They can be checked directly on the seating table, table by table.

1. Everyone plays every round

In every round, every player is seated at exactly one table. Nobody sits out.

2. You never play against your teammates

Across the entire tournament, the four players on the same team never sit at the same table at the same time. This is a guarantee built into the seating itself, not something we hope happens.

3. You never face the same opponent twice

Across the 11 rounds, no two players ever sit at the same table more than once. Each player faces exactly 33 different opponents during the tournament — three new opponents each round.

4. Wind positions are balanced

Across 11 rounds, every player sits in three of the winds three times and one wind twice. Nobody gets East 11 times; nobody gets East 0 times. The wind profile is identical for all players.

The order in which winds appear is also scrambled — you will not get the same wind several rounds in a row. A typical wind sequence might look like W – E – N – S – W – N – E – S – N – W – S.

5. You don't keep returning to the same table

Across the 11 rounds, every player visits 11 different table numbers — never the same physical table twice. So players move through the playing area rather than getting stuck in one corner of the room.

6. Teams are spread fairly across opponents

Across the tournament, each pair of teams meets either 0, 1, 2, 3, 4, 5, or 6 times in total (depending on the player count — exact numbers are listed on the per-count pages later in this document). No team gets a much harder or easier schedule than another.

Why this approach is fair

The randomness is public, and that is the only randomness

In some tournaments, organizers run an algorithm on a computer to produce seating. This raises a natural question: 'How do I know the algorithm wasn't tweaked in someone's favour?' Even when the answer is 'it wasn't', that question is hard to answer convincingly.

In this tournament, the seating table is published in advance, before any draws happen, before any players are assigned to teams. Once players are mapped to seat IDs by the two public draws, the seating is fully determined. There is no opportunity to favour anyone, because there is no choice left to make.

The seating table is built by a simple rule

The seating itself is not random — it is built by a fixed rule. The rule has been published, and anyone with a calculator can verify any cell in the table. There are no 'magic numbers' chosen secretly.

This means two things:

- Anyone can check the published table. If a cell is wrong, anyone can spot it.
- If you wanted to, you could rebuild the entire seating table yourself, from scratch, using only the rule and the parameters listed in this document.

The two draws are physical and witnessed

The team-number draw and the role draw inside each team are done in public, with physical methods (paper slips, dice, a public lottery, etc.). Anyone present can watch them happen. There is no software involved at this step.

For the curious: the rule, in detail

This section is for people who want to verify the seating table themselves, or who are curious about how the rule works. It can be safely skipped — none of it is needed to understand or trust the tournament.

The rule

Suppose there are T teams (so $N = 4T$ players in total). For a given round r (numbered 1 to 11), the player on team k with role m is seated like this:

$$\begin{aligned}\text{Table number} &= ((k - 1) + m \times \text{SHIFT}[r] + \text{OFFSET}[r]) \bmod T + 1 \\ \text{Wind} &= (m + \text{WIND_OFFSET}[r]) \bmod 4 \\ &\quad (0 = \text{East}, 1 = \text{South}, 2 = \text{West}, 3 = \text{North})\end{aligned}$$

"mod T " means: divide by T and take the remainder. For example, $50 \bmod 42 = 8$, because $50 = 1 \times 42 + 8$.

The three parameter lists

The rule uses three lists of 11 numbers: SHIFT, OFFSET, and WIND_OFFSET. Each list has one entry per round.

- SHIFT controls who sits with whom. The values are chosen so that no opponent pair ever meets twice.
- OFFSET controls which physical table each grouping uses. The values are chosen so that every player visits 11 different tables.
- WIND_OFFSET controls which wind position each role gets. The values are a scrambled order so wind sequences look non-blocky, while keeping the same overall wind count for every player.

Importantly, the SHIFT values are not arbitrary. They are constrained by mathematical conditions that, when satisfied, automatically guarantee 'no opponent meets twice'. From the valid SHIFT lists, the published one was chosen to give the most balanced team-vs-team exposure.

Why teammates never meet

Two players sit at the same table in some round if and only if a particular equation between their team numbers and roles is satisfied. When the two players are on the same team (same k), the equation forces them to also have the same role — but that means they would be the same player. So two different teammates can never be at the same table. This is automatic from the rule's structure, not something added on.

How to verify a cell

Pick any cell in the seating table. From the row, you know the round r . From the column, you know the table number and the wind.

Take the seat ID listed in that cell. Compute team $k = ((\text{seat ID} - 1) \text{ divided by } 4, \text{ dropped down to a whole number}) + 1$, and role $m = (\text{seat ID} - 1) \text{ remainder when divided by } 4$.

Apply the rule. The table number it gives should match the column you started in, and the wind should match too. If they do, the cell is consistent with the published rule.

152 players (38 teams)

This page lists the parameters chosen for a tournament with 152 players and 38 teams of 4. They were selected from many valid options to give the most balanced team-versus-team exposure for this player count, while keeping every other property intact.

Parameters

Players	152
Teams	38 teams of 4 players
Tables per round	38
Rounds	11
SHIFT (rounds 1–11)	[1, 3, 4, 11, 15, 17, 25, 28, 29, 31, 33]
OFFSET (rounds 1–11)	[12, 15, 1, 17, 7, 14, 23, 10, 21, 27, 3]
WIND_OFFSET (rounds 1–11)	[2, 0, 3, 1, 2, 3, 0, 1, 3, 2, 1]

What this means in practice

- There are 38 tables, numbered 1 to 38. Every round, every player sits at exactly one table.
- No two players from the same team ever sit at the same table.
- No two players ever face each other twice across the 11 rounds. Each player meets exactly 33 different opponents during the tournament.
- Every player sits in each wind position roughly equally: across the 11 rounds, each player sits in three of the winds three times and one wind twice.
- No player ever sits at the same physical table twice. Every player visits 11 different tables across the tournament.

Team-versus-team exposure

A "meeting" happens whenever a player from one team shares a table with a player from another team during a round. Across the whole tournament, the 703 possible team pairs are distributed as follows:

19 pairs meet 0×, 152 pairs meet 2×, 38 pairs meet 3×, 380 pairs meet 4×, 114 pairs meet 5×

(For example, "19 pairs meet 0×" means there are 19 pairs of teams whose members share a table 0 times in total over the 11 rounds, counting each individual table-share as one meeting.)

156 players (39 teams)

This page lists the parameters chosen for a tournament with 156 players and 39 teams of 4. They were selected from many valid options to give the most balanced team-versus-team exposure for this player count, while keeping every other property intact.

Parameters

Players	156
Teams	39 teams of 4 players
Tables per round	39
Rounds	11
SHIFT (rounds 1–11)	[1, 5, 6, 16, 17, 20, 21, 23, 24, 25, 35]
OFFSET (rounds 1–11)	[24, 1, 26, 27, 36, 21, 15, 8, 23, 32, 13]
WIND_OFFSET (rounds 1–11)	[2, 0, 3, 1, 2, 3, 0, 1, 3, 2, 1]

What this means in practice

- There are 39 tables, numbered 1 to 39. Every round, every player sits at exactly one table.
- No two players from the same team ever sit at the same table.
- No two players ever face each other twice across the 11 rounds. Each player meets exactly 33 different opponents during the tournament.
- Every player sits in each wind position roughly equally: across the 11 rounds, each player sits in three of the winds three times and one wind twice.
- No player ever sits at the same physical table twice. Every player visits 11 different tables across the tournament.

Team-versus-team exposure

A "meeting" happens whenever a player from one team shares a table with a player from another team during a round. Across the whole tournament, the 741 possible team pairs are distributed as follows:

39 pairs meet 0x, 156 pairs meet 2x, 156 pairs meet 3x, 195 pairs meet 4x, 156 pairs meet 5x, 39 pairs meet 6x

(For example, "39 pairs meet 0x" means there are 39 pairs of teams whose members share a table 0 times in total over the 11 rounds, counting each individual table-share as one meeting.)

160 players (40 teams)

This page lists the parameters chosen for a tournament with 160 players and 40 teams of 4. They were selected from many valid options to give the most balanced team-versus-team exposure for this player count, while keeping every other property intact.

Parameters

Players	160
Teams	40 teams of 4 players
Tables per round	40
Rounds	11
SHIFT (rounds 1–11)	[3, 4, 7, 8, 14, 17, 21, 25, 31, 35, 39]
OFFSET (rounds 1–11)	[36, 11, 20, 14, 32, 3, 23, 25, 26, 1, 15]
WIND_OFFSET (rounds 1–11)	[2, 0, 3, 1, 2, 3, 0, 1, 3, 2, 1]

What this means in practice

- There are 40 tables, numbered 1 to 40. Every round, every player sits at exactly one table.
- No two players from the same team ever sit at the same table.
- No two players ever face each other twice across the 11 rounds. Each player meets exactly 33 different opponents during the tournament.
- Every player sits in each wind position roughly equally: across the 11 rounds, each player sits in three of the winds three times and one wind twice.
- No player ever sits at the same physical table twice. Every player visits 11 different tables across the tournament.

Team-versus-team exposure

A "meeting" happens whenever a player from one team shares a table with a player from another team during a round. Across the whole tournament, the 780 possible team pairs are distributed as follows:

20 pairs meet 0x, 80 pairs meet 1x, 40 pairs meet 2x, 200 pairs meet 3x, 320 pairs meet 4x, 120 pairs meet 5x

(For example, "20 pairs meet 0x" means there are 20 pairs of teams whose members share a table 0 times in total over the 11 rounds, counting each individual table-share as one meeting.)

164 players (41 teams)

This page lists the parameters chosen for a tournament with 164 players and 41 teams of 4. They were selected from many valid options to give the most balanced team-versus-team exposure for this player count, while keeping every other property intact.

Parameters

Players	164
Teams	41 teams of 4 players
Tables per round	41
Rounds	11
SHIFT (rounds 1–11)	[3, 4, 11, 14, 15, 16, 17, 21, 23, 29, 39]
OFFSET (rounds 1–11)	[2, 14, 40, 15, 35, 20, 23, 27, 0, 8, 36]
WIND_OFFSET (rounds 1–11)	[2, 0, 3, 1, 2, 3, 0, 1, 3, 2, 1]

What this means in practice

- There are 41 tables, numbered 1 to 41. Every round, every player sits at exactly one table.
- No two players from the same team ever sit at the same table.
- No two players ever face each other twice across the 11 rounds. Each player meets exactly 33 different opponents during the tournament.
- Every player sits in each wind position roughly equally: across the 11 rounds, each player sits in three of the winds three times and one wind twice.
- No player ever sits at the same physical table twice. Every player visits 11 different tables across the tournament.

Team-versus-team exposure

A "meeting" happens whenever a player from one team shares a table with a player from another team during a round. Across the whole tournament, the 820 possible team pairs are distributed as follows:

41 pairs meet 1×, 615 pairs meet 3×, 41 pairs meet 4×, 82 pairs meet 5×, 41 pairs meet 6×

(For example, "41 pairs meet 1×" means there are 41 pairs of teams whose members share a table 1 times in total over the 11 rounds, counting each individual table-share as one meeting.)

168 players (42 teams)

This page lists the parameters chosen for a tournament with 168 players and 42 teams of 4. They were selected from many valid options to give the most balanced team-versus-team exposure for this player count, while keeping every other property intact.

Parameters

Players	168
Teams	42 teams of 4 players
Tables per round	42
Rounds	11
SHIFT (rounds 1–11)	[1, 7, 13, 19, 20, 25, 26, 30, 31, 37, 38]
OFFSET (rounds 1–11)	[10, 33, 3, 14, 30, 24, 1, 15, 5, 19, 6]
WIND_OFFSET (rounds 1–11)	[2, 0, 3, 1, 2, 3, 0, 1, 3, 2, 1]

What this means in practice

- There are 42 tables, numbered 1 to 42. Every round, every player sits at exactly one table.
- No two players from the same team ever sit at the same table.
- No two players ever face each other twice across the 11 rounds. Each player meets exactly 33 different opponents during the tournament.
- Every player sits in each wind position roughly equally: across the 11 rounds, each player sits in three of the winds three times and one wind twice.
- No player ever sits at the same physical table twice. Every player visits 11 different tables across the tournament.

Team-versus-team exposure

A "meeting" happens whenever a player from one team shares a table with a player from another team during a round. Across the whole tournament, the 861 possible team pairs are distributed as follows:

231 pairs meet 2×, 336 pairs meet 3×, 168 pairs meet 4×, 126 pairs meet 5×

(For example, "231 pairs meet 2×" means there are 231 pairs of teams whose members share a table 2 times in total over the 11 rounds, counting each individual table-share as one meeting.)

Questions, corrections, suggestions

If you spot an error in the published seating table, or have a question about the system, please contact the tournament organizers. The seating table is mechanical and can be rebuilt from scratch, so any error can be located and corrected unambiguously.

Thank you for reading. Have a great tournament.