

RiichiOut Ranking System

$$\text{Ranking} = \Sigma[\text{T}_{\text{Rank}} * (\text{T}_{\text{Weight}} * \text{Weight Modifier})] \text{ with } \Sigma\text{T}_{\text{Weight}} \leq 1000$$

T_{Rank} = Tournament Rank (min 100, max 1000)

$$\text{T}_{\text{Rank}} = \left(\frac{\text{T}_{\text{Players}} - \text{Placement}}{\text{T}_{\text{Players}}} \times 800 \right) + 100 + \text{T}_{\text{Bonus}}$$

T_{Players} = Tournament Players

T_{Bonus} = Placement bonus for Top 4 finishers

1 st	2 nd	3 rd	4 th
100	50	30	20

Players who withdraw or fail to finish a tournament are assumed to have placed last.

***Staff will receive a T_{Rank} of 500 for services beneficial to the mahjong community**

T_{Weight} = Tournament Weight (max 750)

$$\text{T}_{\text{Weight}} = \text{T}_{\text{Size}} + \text{T}_{\text{Length}} + \text{T}_{\text{Club}} + \text{C}_{\text{Awesome}}$$

T_{Size} = Tournament Size (max 360)

$$\text{T}_{\text{Size}} = \begin{matrix} \text{T}_{\text{Attendees}} & + & 3 * (\text{T}_{\text{Attendees}} - 20) & + & (\text{T}_{\text{Attendees}} - 80) \\ \text{For } \text{T}_{\text{Attendees}} = \text{Any} & & \text{For } 20 \leq \text{T}_{\text{Attendees}} \leq 80 & & \text{For } 80 \leq \text{T}_{\text{Attendees}} \leq 240 \end{matrix}$$

T_{Attendees} = Tournament Attendees

$$\text{T}_{\text{Attendees}} = \text{T}_{\text{Players}} + \text{T}_{\text{Staff}}$$

T_{Staff} = Tournament Staff (non-playing)

$$\text{Note: } \text{T}_{\text{Staff}} \leq (\text{T}_{\text{Players}} * 10\%)$$

T_{Length} = Tournament Size (max 280)

$$\text{T}_{\text{Length}} = \begin{matrix} 60 & + & 20 * (\text{T}_{\text{Hanchan}} - 4) & + & 10 * (\text{T}_{\text{Hanchan}} - 12) \\ & & \text{For } 4 \leq \text{T}_{\text{Hanchan}} \leq 12 & & \text{For } 12 \leq \text{T}_{\text{Hanchan}} \leq 18 \end{matrix}$$

T_{Hanchan} = Tournament Hanchan (min 4, max 18)

- Includes both preliminary and playoff hanchans played
- Amount of playoff hanchan can count up to 1/3 of T_{Hanchan}
- 2 East-only games = 1 hanchan

T_{Club} = Club Diversity (max 100)

$$\text{T}_{\text{Club}} = (5 * \text{Unique RO Clubs participating})$$

C_{Awesome} = Awesome Constant = 10

Modifier = Tournament Aging Modifier

Aging Schedule (in years)	Modifier
< 1.5 years old	100%
1.5 – 3 years old	75%
3 – 4 years old	50%
4 – 5 years old	25%
5 – 10 years old	5%
> 10 years old	1%

**Due to the ongoing Coronavirus pandemic, aging for tournaments 1.5-3 years old is suspended.*

For purposes of aging, tournaments are considered to have an effective date of the beginning of a given quarter (January 1, April 1, July 1, October 1)

ΣT_{Weight} for any given club's tournaments, adjusted for **Weight Modifiers** ≤ 350

- Tournaments are pro-rated in order to reach a club's limit
 - National tournaments do not count towards a club's limit
-

Examples

1) Aaliyah has the following tournament results from **different** clubs all within the past year:

- A: Ranking = 800, Weight = 500
- B: Ranking = 600, Weight = 300
- C: Ranking = 1000, Weight = 300
- D: Ranking = 700, Weight = 100

Starting from the best results we have:

$$\text{Ranking} = (1000 * 300) + (800 * 500) + (700 * 100) + (600 * 100) = 830,000$$

The last tournament is only weighted at 100 since that is what was left before hitting the cap.

2) Ben has the following tournament results from the following clubs all within the past year:

- W: Ranking = 800, Weight = 500 (held by Club AAA)
- X: Ranking = 600, Weight = 300 (held by Club BBB)
- Y: Ranking = 1000, Weight = 300 (held by Club AAA)
- Z: Ranking = 700, Weight = 100 (held by Club DDD)

Starting from the best results we have:

$$\text{Ranking} = (1000 * 300) + (800 * 50) + (700 * 100) + (600 * 300) = 590,000$$

Tournament W is weighted at 50 since it runs up against an individual club cap of 350 weight.