## General Scoring Arrangements https://parleyyang.github.io/CUPOKS/index.html

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For all candidates, the selection is solely based on a ranking of their summed score over the three selection tournaments on the 7th and 17th January, and 4th February. Let  $x_1, x_2, x_3$  denote the respective ranks the candidate get in the three tournaments, and let  $y_1, y_2, y_3$  be the respective total participants in the three tournaments, let  $z_1, z_2, z_3$  be the respective total entries in the three tournaments, that is, the number of buy-ins in those tournaments, and let  $r_1, r_2, r_3$  be the respective number of rebuys in the three tournaments. Then the candidate has the following score:

$$\sum_{i=1}^{3} \left[ 10 \left( \log \left( \frac{y_i}{x_i} \right) + \log \left( \frac{z_i}{x_i} \right) \right) \times 0.9^{\mathbb{1}(r_i = 2)} \right]$$
 (1)

where log refers to natural logarithm and  $\lfloor \cdot \rfloor$  is the floor function, i.e.  $\lfloor x \rfloor = \max\{y \in \mathbb{Z} : y \leq x\}$ .  $\mathbbm{1}(r_i = 2)$  takes the value 1 if  $r_i = 2$  and 0 otherwise. That is, if the candidate rebuy for twice, the 0.9 would be multiplied, otherwise not. If the candidate did not participate one or two of the games, the score is set as zero

As an example, suppose a candidate places the 2nd, 5th, and 15th in the three games having 20, 30, and 30 players respectively; and suppose the total rebuys of the three games are 10, 15, and 20, then  $z_1 = 30, z_2 = 45, z_3 = 50$ , and hence the score for each of the games goes as 50, 39, 18. The total would be 107.

As another example with absence, suppose a candidate only attends the second tournament (with above setting) and came the 1st, then the score received would be 72. The total would also be 72.

There will be a scoreboard of all candidates proceeding the end of each tournament.