

Strike format

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Strike format was developed by Dima *Rdu* Radu and can be described as follows (extrapolating the n-deck format from the original 3-deck format):

- Both players create a set of n decks of 30 cards
 - Each deck has to be of different class, so $n \leq 9$
- Each player bans m matchups out of n^2
 - Since Hearthstone matches usually follow formats with an odd maximum amount of games (as to prevent draws), m has to satisfy $(n^2 - 2m) \bmod 2 = 1$
- Players play out remaining matches

Since every matchup is played, there are no pick order decisions. Thus, Hero's expected winrate is a probability of winning at least $\frac{n^2-2m+1}{2}$ of $n^2 - 2m$ different Bernoulli trials, which is equivalent of a sum of these trials being equal or greater than $n^2 - 2m$. Using convolution, one can easily figure out distribution of the number of wins and compute the winrate. A function to do just that is provided here. As far as the optimal strategy goes, it is trivial that eliminating the worst remaining matchup is always optimal.