Round Robin 9-Ball Tournament

Objective: To involve all of the players throughout the tournament. Each match will consist of an odd number of games. Each round will pit different players against each other. Final scores will favor the better players, but the "luck of the draw" will be minimized. By setting the number of rounds and games per match, the total number of matches can be calculated to take a roughly given length of time.

Signup

Each player will have a different number for each round. The player number for the 1st round will be in the order of signup, but the first several players might be given numbers based on past performance (they might be seeded). The higher odd numbered players each stand a chance of being the last player to sign up, and therefore not able to play in the 1st round. This player has the choice (before the 2nd round begins), of getting his entrance fee refunded and dropping out, or remaining in the tournament (guaranteed to play in all subsequent rounds).

Notice that before round 2 begins, the tournament can accept stragglers, by simply adding pairs as they arrive to create additional 1st round matches. Any final odd player is added into the 2nd round (or allowed to opt out). Unlike tournaments that are only optimal with a power of 2 contestants, this scheme is optimal for any even number of players, and is nearly optimal with an odd number of players.

The procedure for running the tournament doesn't change with the number of games per match (although it should be odd), nor with the number of rounds per tournament. These numbers can be controlled so that a tournament of an estimated duration can be achieved, even when the number of players is relatively large or small.

Round One

Prior to play, the round 1 scoresheet is prepared. It may be as simple as a lined sheet of paper. Number it from 1 to *n*, and enter the first name (and last name initial if necessary), one name per line. The right part of the line is kept empty so that a player's score may be written there after the round 1 match is over. Names are added as players arrive for the tournament. The top player numbers may be reserved for seeded players. This only applies to round *one*, and only for players that are actually present.

Any final odd numbered player is given a bye. This leaves n players (n is an even number). Player 1 is matched against player *n*; player 2 is matched against player *n*-1, and so forth such that player (*n*/2) is matched with player (*n*/2)+1. Players pair off and play the required number of games for round one (1, 3, 5, or perhaps 7).

At the end of round one, each player's score is the number of games they have won. This number is entered at the right end of the line with the player's name. When all the players have finished, round one is concluded.

Subsequent Rounds

Each subsequent round begins the same way. A new scoresheet is prepared. Starting at the top of the previous scoresheet, the 1st player tied for the most points becomes player number 1 on the new scoresheet. Player number 2 is the next player with an equal number of points, and so on until all players tied for 1st place (after the previous round) are listed. Now, starting at the top of the previous scoresheet again, players tied for 2nd are given numbers, then players tied for 3rd, and so forth. The new scoresheet will list all of the players tied for a given position in the same order they appeared on the scoresheet for the previous round.

The new player numbers are used to pair players in the next round. If there are an odd number of players, the highest numbered player is swapped with the 1st lower number that has not already had a bye. Thus, a different player (tied for low score) sits out on each subsequent round.

Before player numbers for each round become final, some further swaps may need to be made at the bottom of the list. These are to prevent two players who have already played each other from playing a 2nd time. Again, the swap is between the player with the higher number and the 1st lower numbered player that eliminates any rematch.

Players are paired according to their player number at each round just like they were paired for the first round. This pits the players with the highest scores against the players with the lowest scores, and players with medium scores against each other. The reason for this (and the fairness) will become apparent.

After each match, a player is awarded one point for each game won. ***In addition, the winning player is awarded the total points previously accumulated by the loser.***

Playoff Rounds

When all planned rounds have finished, one of the following may be the case: 1st and 2nd place are unique; there is a 1st place tie (2nd place doesn't matter); there is a 2nd place tie. A 1st place tie involves only the 1st place players; a 2nd place tie involves only the 2nd place players. Playoff rounds are played to determine unique 1st and 2nd places.

The players in playoff rounds are only those initially tied for a given place, but the next lower player from the final round may be added when necessary to make an even number of players. This phase of play should be kept short. Consider having one game matches. Losers after the 1st playoff round are eliminated. Each subsequent playoff will have half the number of players of the previous round. Each is scored exactly the same way as the main tournament.

Number of Games per Round

The only rule is that each match should be an odd number of games to guarantee a winner, and not a tie. The first round could have the fewest games per match, and the later rounds more. The more games per match, the greater the chance that the winner will be the better player. On the other hand, the greatest point swings will occur in the later rounds, and these are the ones that should most be determined by skill. The number of games per round, and the number of rounds, can be set to produce a tournament of a roughly desired duration.

Prize Money

Based on the entrance fees collected and whether the house adds or subtracts from this amount, the pot is set. The 1st place winner should collect ⅔rds of the pot, and the 2nd place winner ⅓. Or, divide the pot ½, ⅓, and 1/6th for the first 3 places.

This type of tournament may produce 1st or 2nd place ties. In case of a 1st place tie, 2nd place doesn't get paid. In case of a 2nd place tie, 3rd place doesn't get paid. For any type of tie, there needs to be one or more playoff rounds, unless all of the tied players simply split their share of the pot.

An Example

Abe, Ben, Joe, and Sam are 4 players in a 9 player tournament. Abe and Ben split games about 52% to 48%, but almost always beat Joe and Sam. Joe beats Sam about ⅔ of the time.

Abe comes a bit late to the event and signs up as player #9. Ben is player #1, Joe is #4, and Sam is #8.

This tournament, played on 4 tables will be 5 games for the 1st round, followed by 3 rounds of 3 games each. Thus it will require 14 games on each table to complete. Given an average time of 10 minutes per 9-ball game, it should last about 2-½ hours.

Let's follow Abe through this tournament. Since he's the "odd man" out, he has a bye in the first round, and is swapped into the tournament as the highest player number in the 2nd round. Sure enough, Ben won 4 of his first 5 games, and came out as player number 1 for the 2nd round. He is paired with Abe in the 2nd round.

Now, Abe is a bit lucky, and squeaks out a ⅔ win in the 2nd round against Ben. Ben had 4 points from the 1st round and now has 5. Abe had 0 points from the 1st round, but he now gets 2 points plus 4 points for beating Ben (Ben's total score from previous rounds). This gives him 6 points. Abe's now ahead of Ben!

This takes us to the 3rd round. It so happens that Abe is now player #1, and Ben is player #2. Poor Sam had to sit out for round 2, but is back in for round 3. He plays Abe, and Joe, who lost in rounds 1 and 2, now plays Ben. Each of these guys has only one point, and both lose 3 out of 3 to Abe and Ben in the 3rd round. This adds 4 points to both Abe's and Ben's scores, giving them 10 and 9 points respectively going into the 4th round.

After the appropriate swapping is done at the end of the list for the 4th round, it turns out that both Abe's and Ben's opponents again have only one accumulated game point, and that both Abe and Ben win 3 out of 3 of their games. This gives them final scores of 14 and 13 points, good enough for 1st and 2nd place.

Notice that with the highest scoring players playing the lowest, the lower player can win a lot more points in a match than the higher player. If the higher players keep winning, they will get their game scores plus a few points from their opponent's previous scores. If the lower players keep losing, they will accumulate just the games they have won. If a good player gets knocked into the bottom early on, there is an immediate chance of playing another good player and winning back many of the points lost. The payoff for winning a match is based on how many points your opponent has accumulated. But the opportunity for this goes to the players with the fewest points. The players with the most points seldom get the opportunity for a big payday (by playing another player with a lot of points).

Tournament Philosophy

This tournament format could be used for any sport or game. It is simple, flexible, and favors the better player while keeping all players in play for the entire tournament. This motivates a good player to sign up even when arriving late, and poorer players to sign up knowing they won't be eliminated from the tournament early on.

Another consideration is the length of matches. A match of a given number of games will take longer when both players are less skilled. By having one good player in every match, the length of matches will be more consistent.

Experience will dictate whether it is better to have round one be the fewest or the most games, and how the number of games in later rounds should be increased or decreased.