

Project: Data Collection.

Your assignment is to watch about an hour of a given set of a “famous” tennis match and collect data. The set that you are watching will end in a 7-5 or 6-6 score. This means you will watch 12 service games and record your data in excel worksheet titled **Serving Tennis**.

- 1) The project is due to me via email by 11:59pm December 5<sup>th</sup>, 2017. Send directly to me from your fau email address and to me at [warren.mcGovern@fau.edu](mailto:warren.mcGovern@fau.edu). Save the file as <last name>.<group #>.xlsx.

You will be assigned a group and given a youtube url with times in the video to help you find the appropriate set. Enter the group number into cell B1. You will enter the last names of the players into cells F1 and G1. In cell J1, enter the name of the (Grand Slam) tournament: either US Open or Australian Open. Enter the year of the tournament into K1. Finally, enter which set you are watching into cell N1.

Below is the goal of what you are watching. This will not be a linear explanation. It might take you some time to get used to it. Remember: a game consists of points being played, each point served by the same server. The server needs to win 4 points (by 2). If a player wins 6 games (by 2), then that player wins a set. The whole event is called a *match*.

You are to watch each point and follow the (possibly) first three hits in the point. The point start with the server serving from his deuce side of the court to the opposite deuce side of the court. If the serve is in mark down that the First Serve went in. If it did not go in, then you should mark it down as out. In the latter case, watch the second serve and see if it went in or not. If the second serve does not go in, then mark down a *double fault*. Double faults are to be tallied into column N.

When a serve goes in, then look to see if the receiver touches the ball. If the receiver does not touch an in serve, then this is called an *ace*. You are to keep track of all aces in each game; differentiate between an Ace on a 1<sup>st</sup> serve versus 2<sup>nd</sup> serve using columns D and I. (A second serve ace is rare.)

If the receiver touches the ball but the ball is not returned into play, then this is marked as a return error. Return errors are to be differentiated between 1<sup>st</sup> serve and 2<sup>nd</sup> serve, and to be placed in columns into E and J.

If the receiver returns the ball into play, and the server’s next shot is a winner, then this is recorded as a *quasi-ace*. Enter the number of quasi-aces into columns F and K; of course differentiating between a 1<sup>st</sup> v. 2<sup>nd</sup> serve.

In column N you will type in the appropriate cell a “yes” if the game went to *deuce*. This means that there was at least 7 points played in the game, and this must mean that the score was 40-40 at some point.

In column O, you will only write “yes” if the server lost the game. This is called a break of serve. The server wins the majority of his service games.

A *winner* is a shot that is in play and not touched by the opponent. (On the serve, we call this an *ace*.)

## Definitions

The first point won by a player in a given game is called 15.

The second point won by a player in a game is called 30.

The third point won by a player in a game is called 40.

When hearing the score, the server's score is always said first. For example, Player B is serving to Player A and the score is 15-30. This means Player B has won 1 point, while player A has won 2 points.

When the score is 40-40, this is called a *deuce* game.

Here is an example. At URL: <https://www.youtube.com/watch?v=mGk6c4SHjXc> you can find the 2017 Australian Open Finals between Serena Williams and Venus Williams. The first set starts at 11:42 with Venus Williams serving. Moving to 14:25 you can see that Venus was broken, and that Serena is now serving.

The first point ended with a 2<sup>nd</sup> serve in for a return error. Score: 15-0.

The second point had a 1<sup>st</sup> serve in with a return error. Score 30-0.

The third point was a double fault. Score: 30-15.

The fourth point was a 1<sup>st</sup> serve in. Nothing of consequence happened. Score: 30-30.

The fifth point was a 1<sup>st</sup> serve ace. Score: 40-30.

The 6<sup>th</sup> point was a 1<sup>st</sup> serve out, 2<sup>nd</sup> serve in. Score 40-40. This is a deuce game.

The 7<sup>th</sup> point was a 1<sup>st</sup> serve in. Score: Advantage Venus.

The 8<sup>th</sup> point was a 1<sup>st</sup> serve out, 2<sup>nd</sup> serve in, with Venus winning the point and thus the game.

So this is counted as a break of serve.

Note: On the 2<sup>nd</sup> serve of the 3<sup>rd</sup> point, the serve hits the net and then the ball lands out. So it is a double fault. On the 1<sup>st</sup> serve of the 4<sup>th</sup> point, the serve hit the net and goes in and you hear the chair umpire say "Let, first service". This is a do-over. Do not count this as anything. You need to be aware of this.

A total of eight points were played. Adding up 1<sup>st</sup> serves in + 2<sup>nd</sup> serves in + double faults should total the number of points played in the game.

	Server (Name)	First Serves In	Aces (1st)	Return errors (1st)	Quasi Aces (1st)	2nd Serves In	Aces (2nd)	Return errors (2nd)	Quasi Aces (2nd)	Double Faults	Deuce Game	Break of Serve
Game 1												
Game 2	S. Williams	4	1	0	0	3	0	1	0	1	Yes	Yes