IDEAS FOR MATH LESSONS BASED ON FOOTBALL
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1. Calculate the length (number of yards) of a team's offensive possession.

   a. Possession stays in the offensive team's territory.

   b. Possession starts and ends in the defensive team's territory.

   c. Possession starts on offensive side of 50 and ends across the 50.

   d. Possession starts on the + side of 50 but ends on – side of 50.

   e. Calculate the total offense of a team for the entire game.

2. Calculate the time of possession of a football team on each of its offensive possessions.

   a. Possession lasts less than a minute.

   b. Possession lasts more than a minute but does not continue to the next quarter.

   c. Possession continues into the next quarter.

   d. Calculate the total time of possession for the team for the game.

3. Calculate any of the multitude of statistics that are kept for teams and individuals.

   a. General rule: % of success = (Number of Successes)/(Number of Tries).
      For example, completion %, average yards per carry/completion.
      Special case: Calculate winning % given the wins and losses. (Tries = W + L)

   b. Statistics that illustrate the principle that "% of" means multiply. For example, 60% of a team's total offense came from passing. So how many yards passing did they gain, given the total offense.

   c. Percent of increase/decrease; e.g., how much did the team's passing yardage increase from one game to the next or from one year to the next.

4. All the above can be done as paper and pencil with calculator lessons or, better yet, as **spreadsheet** lessons. Examples:
   Calculate the yards per carry of each of the teams (or the top 10 rushers) in the NFL or a conference.