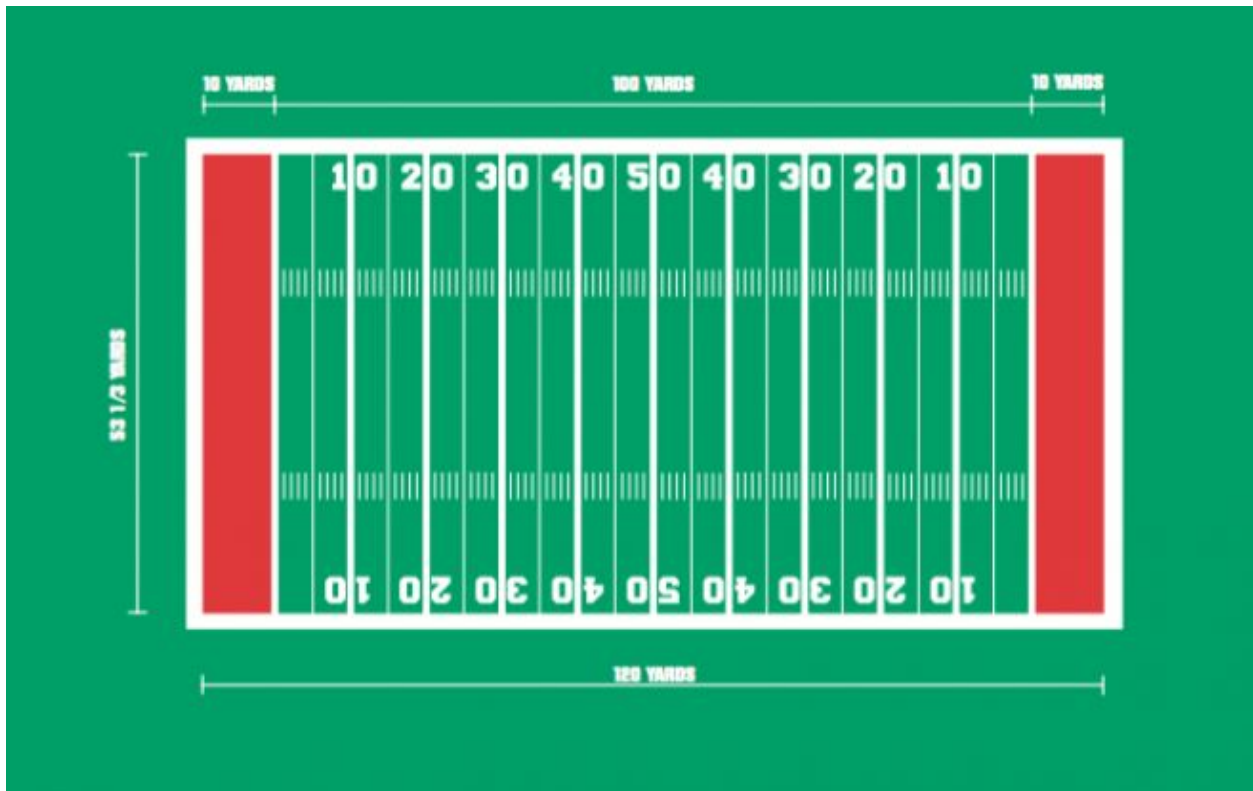


Football Modeling Problems

Use the picture and the given information to write a possible equation for each situation. Define your variables. There may be more than one correct answer for some problems. Use a graphing utility to check your equations.



1. To start the game, there's a kickoff from the 40-yard line. The ball travels 30 yards horizontally and reaches a maximum height of 50 feet.
  
2. Your team is attempting a field goal from the 20 yard line. The uprights are at the back of the endzone and the horizontal cross bar is 10 feet high.
  - a. Write a possible equation that would miss the field goal
  
  - b. Write a possible equation that would make the field goal
  
  - c. (Challenge) Write a possible equation that would hit the crossbar