PROBLEM OF THE WEEK 1

Due Wednesday, September 18 at 5:00 pm

Question. (Inspired from a conversation with Dr Mike Falk) Jerry Walksalot is a baseball pitcher, who throws a strike and a ball with equal probability. Assume that the players on a certain team decide to take all pitches against Jerry (so nobody swings the bat). Recall that in baseball, three strikes means you are out and 4 balls before the third strike means you take a walk.

- a) What is the probability of a batter taking a walk against Jerry in a given at bat?
- b) What is the probability that the team batting against Jerry scores at least one run in a given inning? (Assume there are no such things as wild pitches or balks, so to score a run, the team needs to draw four walks before the third strike-out)
 - All answers should be clearly explained. Submit it to the Math/Stat Office, AMB 107.
 - If your instructor gives you credit for POTW, write his/her name with the class number.
 - Contact Bahattin Yildiz with questions: bahattin.yildiz@nau.edu (AMB 134)