

“Struck by Lightning” Supplementary Materials
Class Exercise About Public Opinion Polls

You will be divided into groups of about four students each.

Each group is a team in the game “battling pollsters”, played as follows:

1. One group will be designated the “voters”.
2. The voters group should secretly agree on an integer x between 0 and 6.
3. All the other groups take turns being the “pollsters”.
4. Each turn proceeds as follows:
 - (a) The pollsters choose an integer s between 1 and 4 (corresponding to the number of samples to be drawn).
 - (b) The voters then secretly roll a fair six-sided die s times. Each time, they look at the number showing. If that number is less than or equal to x , they say “YES”; if it is greater than x then they say “NO”. (The entire class gets to hear them say YES or NO each time; they should speak loudly and clearly.)
 - (c) The pollsters then choose whether or not to try to guess x . [Hint: don’t forget the formula for margins of error!]
5. If the pollsters do not try to guess x , then the next pollster group gets a turn, proceeding according to rule 4.
6. However, if the pollsters do try to guess x , then:
 - (a) if they are right, then their group gets one point;
 - (b) if they are wrong, then each of the other pollster groups gets one point;
 - (c) in either case, the round is over and the game begins again (with a new voters group, and a new choice of x).
7. When a pollster group obtains five points, the game is over and that group is the winner.