Guess Two-Thirds of the Average

- Choose a number between 0 and 100.
- A prize of $5 will be split equally between all students whose number is closest to $\frac{2}{3}$ of the average of the numbers chosen (the mean number). (That’s $\frac{2}{3} \times$ the mean.)
- What should you choose?
- Write down your answer.
- What is the equilibrium choice?
Two-Thirds Of Mean vote, Lecture 1, SGTM, 2001
• The mean of the 31 numbers chosen was 31.61. Two-thirds of the mean was 21.07. Two people chose 22: and the winners are

Anthony Pesec
Antoine Ballester

who will each receive $2.50 from me. Or in Antoine’s case, owe me $2.50 less than before. (Runners up chose 22.60 and 20.)

• Three chose 50, the random mean
  Three chose about 33 (i.e., about $\frac{2}{3}$ of 50)
  Three chose about 22 (i.e., about $\frac{2}{3}$ of 33)
  One chose 15 (i.e. about $\frac{2}{3}$ of 22)
  One chose 10 (i.e., about $\frac{2}{3}$ of 15)
  Three chose 1 or 0.
  Three chose above 80.
Results:

Two-Thirds Of Mean vote, Lecture 2, SGTM, 2001
• The mean was 13.97 of the 23 numbers chosen. Two-thirds of the mean was 9.31 One person chose 9: and the winner is:

Jay Fitzgerald

• One person chose 100 (without him, the mean would have been 10.5, and two-thirds of that 6.7).
  Five people chose 15 (i.e. 2/3 of 22)
  Four people chose 10 (i.e. 2/3 of 15)
  Two people chose 6 or 7 (i.e. 2/3 of 10)
  Four people chose 0.
• John Maynard Keynes:

“...professional investment may be likened to those newspaper competitions in which the competitors have to pick out the six prettiest faces from a hundred photographs, the prize being awarded to the competitor whose choice most nearly corresponds to the average preferences of the competitors as a whole; so that each competitor has to pick, not those faces which he himself finds prettiest, but those which he thinks likeliest to catch the fancy of the other competitors, all of whom are looking at the problem from the same point of view. It is not a case of choosing those which, to the best of one’s judgment, are really the prettiest, nor even those which average opinion genuinely thinks the prettiest. We have reached the third degree where we devote our intelligences to anticipating what average opinion expects the average opinion to be.”

(The General Theory, p.156, 1936.)
Two-Thirds Of Mean vote, Lecture 1, SGTM, 1998
Results:

Two-Thirds Of Mean vote, Lecture 2, SGTM, 1998
Two-Thirds Of Mean vote, Lecture 1, SGTM, 2000
Results:

Two-Thirds Of Mean vote, Lecture 2, SGTM, 2000