Problem 5

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In my previous attempt, I detailed the math as to why I would not have played the powerball. However, if I had to pick a strategy to play the lottery, I would try and enter with a group. With this strategy, I increase my odds of winning without having to substantially increasing my own contribution. Although my odds may not be significantly increased, my odds are better. The split in the payout seems like a small price to pay to win anything at all. I don't think anyone goes into the lottery expecting to win, but I do believe anyone, should they choose to play, would want to increase their odds of winning in any way possible.

If I were someone who played the lottery often, I would select a set of numbers and always play the same numbers. In a single play, picking any set of numbers would not increase my odds, but over the course of many plays I should expect combinations of numbers not seen would eventually show up (nevermind that it may take millions of year for it to show up). Ultimately, if you want to win the lottery, you should simply play. Your odds are never increase in a more significant manner than when you buy your first ticket.

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In terms of the math I had previously done, playing at a time when the lottery is the highest it has every been makes the most sense. Your average expected payout will never be higher than it is in the scenario. Therefore, I would apply my strategy taken in the first paragraph (group purchase) to this scenario in hopes that I may win due to my increased odds, no matter how (in)significant they may be.