INTERACTIVE: Win the Powerball!

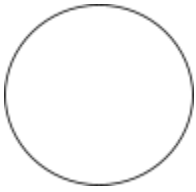## Interactive: LA Times Powerball Simulator

Each year, roughly half of Americans buy at least one state lottery ticket[1]. How many of them do you think win big? Let's find out! Use this Powerball Simulator to test your luck and discover the odds of winning

Part I: Get the Hang Of It

1. First, pick your lucky numbers. The five squares need a number between 1-69, and the circle needs a number between 1-26.

2. Open the LA Times Powerball Simulator and input your 6 lucky numbers.
    a. Note: The simulator gives you $100. When you push play, it will start buying tickets and tallying your wins and losses. Your balance will always end in $0, as it assumes you want to spend any winnings on more tickets.

3. Push Play! Then, fill in your results in the table below.

Spent	Won	Win/Loss (the total amount you ended up winning/losing)

4. Put down $100 more and play one more time. Will you go with your same lucky numbers, pick a new set of numbers, or use the auto-generated "quick pick"?

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[1] https://news.gallup.com/poll/193874/half-americans-play-state-lotteries.aspx

5. How are you feeling about your lottery experience so far?

6. Before you keep playing, take a minute to reflect on your results so far. Let's calculate how frequently you're winning.
   a. A Powerball ticket costs $2. How many tickets have you purchased?

   b. How many total times have you won? Look at the table under the "How does this work?" section.

   c. What percent of the time are you winning?

7. What was the largest single prize you won?

Part II: Strategize
You've got to play big to win big! The current Powerball Jackpot is $229 Million. You decide to keep buying Powerball tickets to see if you can win the big prize that makes it all worth it. First, you take some time to strategize.

8. That Jackpot is calling your name! What would you do if you won $229 Million?

9. Devise a strategy to use in your next 3 rounds of playing. Consider:
   a. Will you keep the same numbers or try different ones?
   b. How many tickets will you buy? What do you think are your chances of winning?
   c. How much will you spend in each round?
   d. What strategies do you think will/ won't improve your chances of winning?

10. Play 3 more rounds. Then, record your final results in the table below.

Spent	Won	Win/Loss

Part III: Reflection

11. Would you want to continue playing? Why or why not?

12. This game always assumes you want to invest your winnings back into the game. Is this true in your case? Think of the largest prize you ended up winning in the game. Would you have used that prize to purchase more lottery tickets? Why or why not?

13. If this were real money on the line, how, if at all, would your strategy change?

14. You've probably seen ads for the lottery or other types of gambling. Choose one of the following pieces of media to analyze:
    CHART: Number of Winners
    IMAGE: Powerball Winners
    VIDEO: Powerball Drawing
    IMAGE: CA Lottery Ad

    a. What strategies or cognitive biases does this piece of media use to promote the lottery?

    b. Does this piece of media make you want to play more? Why or why not?

MATH BONUS:

Directly from the Powerball website, read and be amazed...

Players Insights
Odds are you don't know this...

Did you know your odds of winning a prize are the same in every Powerball drawing?

You have a 1 in 24.9 chance of winning a prize when the advertised jackpot is $40 million.

You still have a 1 in 24.9 chance of winning a prize when the advertised jackpot is $1 billion.

Even if there are more tickets sold in a particular drawing, your odds of winning a prize are the same.

ODDS OF WINNING

1 in 24.9

15. If you've got a 1 in 24.9 chance of winning, what percent of the time should you expect to win? Is that higher or lower than you would have guessed?

16. Read closely -- is that your chance of winning the multi-million jackpot? What is the "catch" with their 1 in 24.9 claim?

17. Mathematically speaking, how is it possible that your odds of winning don't change, even if double or triple the number of people buy tickets?

18. As you played the game, what was the relationship between the number of times you won at each level and the size of the payout? What creates that dynamic?