



Introduction to Expected Value (EV)

Expected Value (EV): The amount of money a certain play expects to win or lose on the average.

- Based on our equity in a hand, we can use expected value (EV) to determine how much we expect to win or lose in any given poker scenario.
- EV is how much we expect to win or lose **on average, over the long run**, based upon a specific scenario in poker.
- Some plays will win us money, while others will lose money.
 - **+EV** = A profitable long-term play
 - **-EV** = A unprofitable long-term play



Long-Term Focus

- Just like equity, EV is concerned with how well a certain play will do over the long-run, and not the outcome of a single hand.
- For example, if we were evaluating the EV of calling a pre-flop all-in with pocket Aces against an opponent that has pocket Queens, we know that this is a long-term profitable play, regardless of whether we lose that hand or not.
- We may get unlucky and lose the hand, but we know that, over the long-run, it's a +EV profitable play.



Why is EV Important?

- Solid poker strategies revolve around making profitable poker plays and decisions, aka, +EV decisions.
- Fundamental poker math is at the core of maximizing our winnings and minimizing our losses.
- In short, winning poker is +EV poker, whereas losing poker is –EV poker.
- In poker, we want to strive to make as many long-term profitable plays as possible, and EV will help us do so.



How do we use EV?

- We can use EV both on the table while we're playing a hand, and off the table in analyzing previous hands we've played.
- When we're in a hand, we can use our knowledge of poker math to enhance our likelihood of making profitable +EV poker plays.
- By understanding pot odds, implied odds, equity, the Rule of 2 and 4, and other math topics, we maximize the chances that we'll make profitable +EV plays.
- We can also use EV and EV calculations to analyze hands we've played, in order to determine if they were +EV or -EV.
- EV calculations are simple mathematical formulas that help us determine if a particular play is a long-term profitable +EV play, or unprofitable -EV play.
- EV calculations will not only tell us if a play is profitable or not, but will also quantify exactly how profitable or unprofitable it is overall.



Expected Value (EV) Calculation

- The basic EV calculation is composed of two parts:
- **EV**= [Part A] - [Part B]
 - **Part A**: How Much You Win x Probability of Winning
 - **Part B**: How Much You Lose x Probability of Losing
- **EV**= [Expected Long-Term Winnings] – [Expected Long-Term Losses]
- **EV** = (% win x \$ win) – (% lose x \$ lose)

We'll be re-visiting and discussing EV calculations later in the course.